UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTICT OF NEW YORK
Case No. 08-13555-scc
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In the Matter of:
LEHMAN BROTHERS HOLDINGS INC., Chapter 11
Debtors.
- - - - - - - - - - - - - - - - - x

U.S. BANKRUPTCY COURT
One Bowling Green
New York, New York

November 6, 2014
9:34 AM

B E F O R E :
HON SHELLEY C. CHAPMAN
U.S. BANKRUPTCY JUDGE

Evidentiary Hearing Re: Doc# 19888 Debtors' One Hundred Ninety-First Omnibus Objection to Claims (Valued Derivative Claims? Filed by Robert J. Lemons on behalf of Lehman Brothers Holdings Inc..

Transcribed by: Sonya Ledanski Hyde

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P R O C E E D I N G S

THE COURT: How is everyone today?

GROUP: Very well. Fine thank you.

THE COURT: Hanging in there? Home stretch?

MR. TAMBE: Absolutely.

THE COURT: All right. We're ready when you are. Because I had thought we were starting at 10:00 I scheduled a small matter for 10:00 o'clock. Counsel is going to be told that they need to wait until there is a logical break. I'm not going to interrupt the conclusion of the cross or if we're into the direct I'm not going to interrupt that. But I will take literally a three-minute pause for this other matter at some point around 10:00-10:30.

MR. TAMBE: I think we have one housekeeping matter to go over.

THE COURT: Okay.

MR. TAMBE: There is an exhibit we emailed to the Court and to the other side. It's an addition to the debtor's exhibits.

THE COURT: Okay. Thank you.

MR. LAWRENCE: Can I just--?

THE COURT: Okay, I won't look at it yet before Mr. Lawrence tells me what he wants to say.

MR. LAWRENCE: Yes. I don't really care if you look at it. I feel that this is unfair--

THE COURT: Okay.

MR. LAWRENCE: --to the witness Peter Shapiro. It was one thing to have documents that would be used to cross in, available pre-pretrial so that he could review documents and be prepared. Because this was sent last night and he's under the Court's order to--he can't talk or do anything--

THE COURT: Right.

MR. LAWRENCE: --this basically being done at 11:00 o'clock last night is very unfair to the witness and I'll object on this basis.

THE COURT: Okay. Mr. Tambe?

MR. TAMBE: I will state that the document we handed up is a document that he authored. It's his document. He should be intimately familiar with it.

MR. LAWRENCE: Whether he's familiar with or not, he hasn't had an opportunity to refresh his recollection on it to consider it in advance. He hasn't had the opportunity to, you know, basically prepare for his examination on it. I think it's unfair to throw something at him at 11:00 o'clock at night when's under suppressed--

MR. LAWRENCE: Well, it's also part of Exhibit 71 which was submitted some time--

THE COURT: Okay, why don't--

MR. LAWRENCE: If he wants to use 71 then we have an objection to 71.

MR. TAMBE: 71 is about two inches thick, but yeah. Fine, we can use 71. Whatever makes you happy.

THE COURT: Okay, so that takes care of the unfair surprise element of it.

MR. LAWRENCE: Yes.

THE COURT: And if there's another objection we can deal with that. Okay. So this is--

MR. TAMBE: This is an excerpt from Exhibit 71.

THE COURT: So this is now being designated as debtor's 150.

MR. TAMBE: We'll just use Exhibit 71, your Honor. There we go. All right, with that we're ready to proceed.

THE COURT: Okay. Mr. Shapiro, would you please come back up, sir?

MR. SHAPIRO: Certainly.

THE COURT: Okay, welcome back. You're still under oath.

MR. SHAPIRO: Good morning, your Honor.

THE COURT: Good morning.

MR. TAMBE: Good morning, Mr. Shapiro. In your rebuttal report Exhibit Y, if you have it there, paragraph 29, you state there that The spread to CP, the 66.6 basis point spread to CP, which was in the calculation in the proof of claim form, you believe it's no longer accurate, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. What you say is the methodology that was used by your staff in determining the 66.6 basis points did not take into account actual hedging conditions at the time of the termination. Do you see that?

MR. SHAPIRO: I do see that.

MR. TAMBE: Okay and this rebuttal report is something you prepared and submitted some time after you were depositioned, correct, your first deposition?

MR. SHAPIRO: Yes.

MR. TAMBE: And your first deposition was December 2013, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: So it’s fair to say that when you were deposed in December 2013 you were not aware of this mistake made by our staff.

MR. SHAPIRO: Yeah. I don't like to blame it on my staff. It’s, you know, we’re all accountable.

MR. TAMBE: Well, you may not like to blame it on your staff, but isn’t that what you’re doing in paragraph 29-- the methodology that was used by--?

MR. SHAPIRO: My wording may have been a little--

MR. TAMBE: Let me finish. Let me finish asking the question.

MR. SHAPIRO: Okay, I'm sorry.

MR. TAMBE: Isn’t that exactly what you’re doing in

paragraph 29, the methodology that was used by my staff in determining the 66.6 basis points did not take into account actual hedging conditions?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. Now you were aware in December 2013 when you testified what methodology they had used, right?

MR. SHAPIRO: I was aware what methodology they'd used? I believed I was, yes.

MR. TAMBE: Right. Let's go to the deposition transcript, December 2013 page 141. It will come up on the screen.

THE COURT: Yes, Mr. Lawrence?

MR. LAWRENCE: He can use--if he's trying to use this to impeach Mr. Shapiro that's fine, but I don't think he can use it for another purpose and there's no impeachment issue on the table. He's admitted what he said in his deposition so I object to the use of the deposition.

THE COURT: Mr. Tambe?

MR. TAMBE: With the Court's indulgence, all I would say is wait for it. It's coming.

THE COURT: All right. Let's see what happens.

MR. TAMBE: So, you were asked about the 66.6 in the deposition. Do you remember that? This is page 141.

MR. SHAPIRO: I do.

MR. TAMBE: Right. And this is line 10.

MR. SHAPIRO: It's showing 114 on my screen here. Should it be 141?

MR. TAMBE: It should be 141, December 23.

THE COURT: So this is the first deposition.

MR. TAMBE: The first deposition. I don't think that's--There we go. We have 141 now, line 10. Now at that time I asked you I believe at one point you testified that adding the 66.6 basis points to the LIBOR curve would work in Lehman's favor, correct? And you said yes. And I asked you now, you didn't use that calculation because you were trying to do a favor for Lehman, correct? You said no--

MR. LAWRENCE: I will--I will--

MR. TAMBE: --we're not--

THE COURT: Mr. Lawrence, let him finish reading what he's reading and then I'll give you a moment to object, okay? All we're doing is reading right now, okay? Go ahead.

MR. TAMBE: And your answer then was no, we're not trying--you know, as a firm we have a real discipline to try to do things accurately, fairly, correctly, defensively, that's our goal. That was your answer, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: And you testified truthfully at your deposition, correct?

MR. SHAPIRO: Sure.

MR. LAWRENCE: Your Honor, since you didn't give me a

chance to object, first of all this is not impeachment. Second of all this actual line of questioning was done yesterday and the exact same answer was given to these questions without the use of the deposition so it’s asked and answered--

THE COURT: Is the--

MR. LAWRENCE: --in addition to the improper use of the deposition.

THE COURT: Is there something additional that--?

MR. TAMBE: It’s coming.

THE COURT: Okay. Keep going.

MR. TAMBE: When you gave that answer in December 2013 you were fully aware of exactly how your staff had gone about figuring out what the CP curve would be, right?

MR. SHAPIRO: Actually not.

MR. TAMBE: So, when you gave that answer saying the 66.6 that would work in Lehman’s favor was done with discipline, accurately, fairly, correctly, defensively you didn’t know how your staff had come up with LIBOR plus 66.6. Is that your testimony here, sir?

MR. SHAPIRO: That’s my testimony. I went back and revisited it actually after this to re-examine as we often do to check to see if there's any possible errors we made because lots of questions had been raised and we like to be honest and see if they’re legitimate so we revisited--I personally revisited this issue to look at it.

MR. TAMBE: My question is a narrow one, sir.

MR. SHAPIRO: Yes.

MR. TAMBE: When you gave that testimony in December 2013 I believe you just said you were unaware of how your staff had computed the LIBOR plus 66.6. Is that right?

MR. SHAPIRO: I believed my answer to be correct at that time. That’s correct.

MR. TAMBE: Slightly different question, sir. The question I'm asking you in this courtroom this morning is when you gave that answer in December your state of knowledge was you did not know how your staff had come up with LIBOR plus 66.6. That’s the question.

MR. SHAPIRO: I believed at that time that I did know.

MR. TAMBE: You did know.

MR. SHAPIRO: I believed at that time that I did know. In fact if you read through the deposition, which I’ve reread in order to prepare for the trial, I actually go into a discussion of thinking it was done from the basis market. When I went back and observed the basis market at that period time in fact my answer in the deposition was wrong.

MR. TAMBE: See, now you’ve got me confused. You say in your deposition you have a real discipline, it’s done accurately, fairly, correctly, defensibly. I believe you also just told me when you give that answer in December 2013 you

knew what your staff had done, correct?

MR. SHAPIRO: I believed I knew.

MR. TAMBE: Well, either you knew or didn’t know. What was the basis for that answer that you gave saying that the 66.6 was done with discipline, accurately, fairly, correctly, defensibly? On what basis did you give that answer?

MR. SHAPIRO: Because that's our policy throughout and the kind of scrutiny that we’re under. But we don't--we’re not perfect, Mr. Tambe. We do make mistakes so we go back and revisit these things. I recheck and recheck and sometimes I find error.

THE COURT: Mr. Lawrence--Mr. Tambe, could you--and Mr. Lawrence, could you go back farther in deposition transcript?

MR. TAMBE: That’s where I'm going next.

THE COURT: Thank you.

MR. TAMBE: Yeah. You gave that answer in December 2013 because, we can go to page 132 of the deposition, we had discussion at that deposition about how the curves were prepared. Do you remember that?

MR. SHAPIRO: Yes.

MR. TAMBE: And you said you went--there’s a discussion on page 132 and it continues. It talks about the Bloomberg screen, the Bloomberg screen for commercial paper securities, correct?

MR. SHAPIRO: Show me the reference if you will.

MR. TAMBE: Sure. 132. Let's start on 131 at the bottom.

MR. SHAPIRO: They flipped the wrong way on the screen.

MR. TAMBE: 131 at the bottom. So it starts at the bottom of the question. So within the 30B(6) right what did you, Peter Shapiro, do to examine what the yields would be on the different eligible securities? Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: And this is in the context of saying how do you figure out what the floating leg is going to be, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. So now we go to 132 and you say I looked at a Bloomberg screen, right? That was your answer--you looked at the Bloomberg screen.

MR. SHAPIRO: Right there.

MR. TAMBE: You don't say my staff looked at a Bloomberg screen.

THE COURT: Mr. Lawrence?

MR. LAWRENCE: I would object because this question was clearly--

THE COURT: No it was not.

MR. LAWRENCE: --a 30--no it was a 30b(6) question.

It says--

THE COURT: Mr. Lawrence--

MR. LAWRENCE: --within the 30b(6)--

THE COURT: --there was an objection at the time and the answer was, “I'm still in 30b(6). I'm trying to find out who did what within the 30b(6).” And that’s what this is about.

MR. LAWRENCE: Sure.

THE COURT: Okay?

MR. LAWRENCE: But I--

THE COURT: And what this line of questioning has to do with what specifically Mr. Shapiro personally did.

MR. LAWRENCE: Okay.

THE COURT: Okay?

MR. TAMBE: So you said in December 2013 you looked at a Bloomberg screen and I asked you what Bloomberg screen did you look at? One that would compare yields. I asked you for a name. I asked you for a page number. Do you see that?

MR. SHAPIRO: Correct.

MR. TAMBE: And you told me there are multiple screens. There is more than one. Yes, there's more than one. I asked you a question, one of the eligible securities is commercial paper, correct? Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: You said correct, not just any commercial paper and you say highest rated, right? And we go on with this

and you never give me a screen name for where the 66.6 came from, right?

MR. SHAPIRO: Correct.

MR. TAMBE: But you knew fully well where that 66.6 came from, didn't you sir?

MR. SHAPIRO: At that time?

MR. TAMBE: Yes, at that time.

MR. SHAPIRO: At that time honestly when I went back and rechecked I had given--that was wrong. I looked at it and there's another point in the deposition where we discuss basis spreads. Now remember, Mr. Tambe, this is important factually.

MR. TAMBE: My question is straightforward.

MR. SHAPIRO: But this is important factually.

THE COURT: Mr. Shapiro--

MR. TAMBE: I don't want you to obfuscate the record.

THE COURT: Mr. Shapiro, the rules of the road are that you're being cross-examined and Mr. Tambe is entitled to ask you questions calling for yes or no answers. To the extent that you are unable to give yes or no answers you can ask that a question be clarified. To the extent that you wish to give extensive narrative you're going to have that opportunity when Mr. Lawrence does your redirect examination.

I know it can be very frustrating, but please as much as you can try to answer the questions that are asked. All right?

MR. SHAPIRO: Thanks, your Honor. I'll try to do that.

THE COURT: Okay.

MR. TAMBE: If you could just read back the last question and answer.

CLERK: But you knew fully well where that 66.6 came from, didn't you sir? Answer, At that time honestly when I went back and rechecked I had given--that was wrong. I looked at it and there's another point in the deposition where we discuss basis spreads. Now remember, Mr. Tambe, this is important factually.

MR. TAMBE: You knew sir when your report was prepared, you knew in December 2013 that the way Mr. Vergara calculated CP spreads is you went to the H15 page on Bloomberg. You knew that, did you not, sir?

MR. SHAPIRO: On December 13th what I testified to was that I looked at a Bloomberg screen. I didn't remember the name of the screen. You can see it right there.

MR. TAMBE: Again, the question is just a little bit different. You have known from 2009 all the way to December 2013 when you testified under oath exactly how your staff, Mr. Vergara prepared the CP curve, the spread to CP. You've always known that. Isn't that right, sir?

MR. SHAPIRO: No.

MR. TAMBE: Okay. So, when you testified then on

page 141 off your deposition in December 2013 that you have discipline, you do things accurately, fairly, correctly, defensively you had no idea what screen he'd looked at.

MR. SHAPIRO: I didn't say I had no idea. I said there were multiple screens. So I'm going to say no to that question.

MR. TAMBE: The fact of the matter is now in your rebuttal report, Exhibit Y, you go to two different screens on Bloomberg, correct? Exhibit Y the same paragraph 29. When you go to those screens and your conclusion as well--if you look at those two screens you only end up with two basis points or four basis points. It's about four lines from the bottom.

So, just so we have the math correct, what Mr. Vergara had done in the spreads that he'd used pushed the LIBOR curve up by 66.6 points, correct?

MR. SHAPIRO: It would have added a spread to the LIBOR. It didn't change the LIBOR curve.

MR. TAMBE: Right, it would have added 66.6 points--

MR. SHAPIRO: That's correct.

MR. TAMBE: --to the LIBOR curve and what you're doing in paragraph 29 looking at other screens is bringing that curve back down, right?

MR. SHAPIRO: It adds less. It doesn't bring it down.

MR. TAMBE: So, let's go to Exhibit 71. So, if you

look at Exhibit 71, I don't know if you have the full version there. It's the last three pages or four pages of this document which is a Swap Financial Group memorandum. Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: And you'll see on page one of that memorandum it's got your name on it, it's got Mr. Vergara's name on it, correct?

MR. SHAPIRO: I see that.

MR. LAWRENCE: Your Honor, just for the record we had objected to this, your Honor. We understood because it's not related to--

THE COURT: Right.

MR. LAWRENCE: --Washington TC we understand your ruling is to the extent he has personal knowledge about something he can testify, but we'd still for the record want our general objection.

THE COURT: Okay. Very good.

MR. TAMBE: And you'll see the general format of this memo if you flip through the pages it's similar--similar headings, similar content to the Washington Tobacco memo that you prepared, correct?

MR. SHAPIRO: In some ways.

MR. TAMBE: And there's a section on page three of this document which has a discussion about commercial paper

spreads. Do you see that?

MR. SHAPIRO: Correct.

MR. TAMBE: And you've got a whole extended discussion about how commercial paper would be the cheapest to deliver. Do you see that?

MR. SHAPIRO: Correct.

MR. TAMBE: And you'll see in the middle of that paragraph since January 2008 the spread relationship between the Federal Reserve's H15 asset-backed commercial paper index, there's a page cite on Bloomberg, and US dollar three-month LIBOR has shown swings of nearly 320 basis points. And there's a discussion about those swings below. Do you see that?

MR. SHAPIRO: I do.

MR. TAMBE: And that analysis based on page H15 of Bloomberg is what you use in this memorandum humans, you and Mr. Vergara used in this memorandum to come up with the spread to LIBOR piece of your calculation of 25 basis points. Do you see that?

MR. SHAPIRO: Correct.

MR. TAMBE: And in fact that was the methodology you used in the Washington Tobacco memorandum as well, didn't you sir?

MR. SHAPIRO: I didn't say that. Those are your words.

MR. TAMBE: I know you didn't say that, but that's

what Mr. Vergara did, didn’t he sir?

MR. SHAPIRO: I can’t say that. If you look--

MR. TAMBE: Okay so--

MR. SHAPIRO: I testified already we looked at multiple screens so I'm not going to sit here and testify, you know, to something which I don’t know to be the case and where you’re putting words in my mouth.

MR. TAMBE: So, just to clarify a couple of things. When you testified in December that you looked at Bloomberg screens that may not have been you, it may have been Mr. Vergara.

MR. SHAPIRO: No, it was me as well I'm certain. Okay, now--

MR. TAMBE: But you don’t remember anything about what screen led to the commercial paper spread you used in the Washington Tobacco loss calculation.

MR. SHAPIRO: In the first calculation that we did prior to the rebuttal report I--

MR. TAMBE: Right.

MR. SHAPIRO: I can--I can tell you with pretty good certainty because I know what the number indicates. If you want that answer I'm happy to give that to you.

MR. TAMBE: There are a couple of questions I’d like answered. But if Mr. Vergara told us under oath in his deposition what screen he looked at we should believe him,

right?

MR. SHAPIRO: Again, I can't sit here and testify to everything that Mr. Vergara said was correct. That's for you to judge or for the judge to judge.

MR. TAMBE: It's a matter of process maybe. You're the expert witness. You've submitted an expert opinion to this Court. You rely on the work that was done by Mr. Vergara, correct?

MR. SHAPIRO: Rely and double check and you see plenty of evidence of that.

MR. TAMBE: Right and so if Mr. Vergara testified under oath he ran the model a particular way and he went to a particular screen on Bloomberg you relied on that, didn't you sir?

MR. SHAPIRO: I did.

MR. TAMBE: Okay. And the Court should rely on that, shouldn't it?

MR. SHAPIRO: No and I've testified on that already that we catch an error we correct it.

MR. TAMBE: Okay. Let's turn to market quotation. I believe you testified on direct yesterday, and this is off the rough transcript so it may not be exactly right--

THE COURT: Speaking of the rough transcripts.

MR. TAMBE: Yes.

THE COURT: I'm sorry to interrupt. It's my practice

to ask counsel for the roughs as they're available and I forgot to do that. So, if one of you could have somebody in your back office email them to my chambers or just give us a hard copy I would be grateful.

WOMAN 1: We can give your Honor a copy.

THE COURT: Okay thank you. I apologize. Go ahead.

MR. TAMBE: I believe you said, "we called every conceivable provider in this business and people just said I'm not doing tobacco FDAs, forget about it, I don't even want to see the papers." That was your testimony, correct?

MR. SHAPIRO: That's correct.

MR. TAMBE: And that's in fact what you did. You called every conceivable provider in the business, is that right?

MR. SHAPIRO: Are you asking me personally or our firm?

MR. TAMBE: Let's start with you personally. Did you personally call every conceivable provider?

MR. SHAPIRO: No, we always divide that up among members of our team.

MR. TAMBE: How many did you call?

MR. SHAPIRO: I can't remember. This is how many years ago?

MR. TAMBE: How many conceivable providers are there?

MR. SHAPIRO: We thought at that time there was

something on the order of 10 to 15.

MR. TAMBE: So how many did you call, 10 or 15?

MR. SHAPIRO: We would have called--you know, this same list that you see in the exhibit you just pointed to.

MR. TAMBE: We'll get to that.

MR. SHAPIRO: Yeah.

MR. TAMBE: How many did you call, 10 or 15?

MR. SHAPIRO: Let me count the number that's in that exhibit and that would be a good indication.

MR. TAMBE: Just to be clear the exhibit you're talking about is exhibit 71. That's' the memo you prepared for another tobacco agency.

MR. SHAPIRO: For New York.

MR. TAMBE: For New York. And that's--

MR. SHAPIRO: That shows 14.

MR. TAMBE: Let me just finish. What you're citing to is your memorandum in that matter which sets out 14 different dealers that you called and that you documented the process for, right?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. And you'd agree with me there's no such documentation of any process done in the Washington matter, correct?

MR. SHAPIRO: Nothing in writing that we put down.

MR. TAMBE: Nor recordings anywhere, right?

Telephonic?

MR. SHAPIRO: No.

MR. TAMBE: Okay. And when you say nothing in writing, no emails either, right, about it?

MR. SHAPIRO: No.

MR. TAMBE: Instant messages, Bloomberg messages, nothing.

MR. SHAPIRO: We don't use that stuff, yeah.

MR. TAMBE: Okay. When did you do that? When did you call every conceivable provider?

MR. SHAPIRO: We had to do it several times in this case. We had to do it right around the time of the rejection date, that is the termination date, that was the case here. We also had done it earlier in the process because we were seeking to evaluate on a different date as well.

MR. TAMBE: So, just completeness, right? You did it sometime in January?

MR. SHAPIRO: Yeah. I guess it was January. The record would show when it was.

MR. TAMBE: The record doesn't show anything. The record just says what you said--what you say you did it. So you said you did it in January.

MR. SHAPIRO: If January was the time of the first evaluation then you're correct.

MR. TAMBE: And then in March you claimed to have

done it after the rejection date.

MR. SHAPIRO: Yeah, we would have done, you know, around the time that we were dealing with counsel on this to determine what was the correct date for valuation and there was quite a bit back and forth on the discussion about what's the correct date that we should be using. So it would--

MR. TAMBE: Is your--

MR. SHAPIRO: --read at that date.

MR. TAMBE: The rejection date was March 25th.

MR. SHAPIRO: Correct.

MR. TAMBE: We discussed an email yesterday that was a Friday email from Mr. Cook to you saying now that the date is settled let's see some calculations. That was Friday afternoon. You responded to that very early in the morning on Monday and you were traveling for three weeks, correct?

MR. SHAPIRO: I believe so.

MR. TAMBE: And that same morning Mr. Vergara sent a calculation to the TSA having run the model, correct?

MR. SHAPIRO: Right.

MR. TAMBE: No quotes were sought between Friday and Monday, isn't that right sir?

MR. SHAPIRO: No, quotes wouldn't have been done between Friday and Monday. We would have had to go back and say as of that date

MR. TAMBE: The fact of the matter is, sir, no quotes

were run any time after the rejection date, isn't that the truth sir?

MR. SHAPIRO: No, that's not the truth.

MR. TAMBE: When you sought quotations in New York you sent out a bid package, correct, with the documentation, the particulars of the deal, remember?

MR. SHAPIRO: I don't recall on that.

MR. TAMBE: You just don't remember one way or the other whether you sent out a bid package.

MR. SHAPIRO: I didn't prep for what we did in New York here. You know, we've done so many of these terminations as you know.

MR. TAMBE: I think you testified on direct that the RFAs are a very complex document, big document, lots of terminology.

MR. SHAPIRO: Yes.

MR. TAMBE: Right? If you wanted to get a quotation from a dealer you would need to provide them with the details of the transaction, correct?

MR. SHAPIRO: That's absolutely wrong. We provided the Tobacco RFAs, they knew right away they (indiscernible) and this is not disputed.

MR. TAMBE: So the answer is you didn't send out a bid package in the Washington TSA matter, correct?

MR. SHAPIRO: We did not send out a bid package. We-

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MR. TAMBE: You didn’t send it out in January and you didn’t send it out in March.

MR. SHAPIRO: That is correct.

MR. TAMBE: Now you know from work you’ve done in this case that other parties facing Lehman in or about the same time period did go out to the same market and did get quotations, correct?

MR. SHAPIRO: Your Honor, there’s a slight issue I have.

THE COURT: Yes or no. Do you--it’s a really straightforward question. Mr. Lawrence--

MR. LAWRENCE: I just--

THE COURT: I don’t want a speaking objection.

MR. LAWRENCE: I'm not going to speak--I would just ask him to lay personal foundation in terms of whether he’s asking whether he did it or whether he saw someone else do it.

THE COURT: No, that wasn’t the question.

MR. LAWRENCE: The question is--

THE COURT: The question was asking for his knowledge. That’s my rec--we can read the question back.

MR. LAWRENCE: So, just his knowledge of whether he saw something or not.

THE COURT: No, no, no.

MR. TAMBE: No, no, no. The question is what the

question is.

THE COURT: The question is more precise than that. We can read it back.

MR. LAWRENCE: Why don't we read it back?

THE COURT: Okay. Let's way till the sirens go by. I'm sorry about the noise. We just will have no air in here if we don't keep the windows open. I can't control the government's HVAC policy.

MR. TAMBE: I'll make a suggestion. If the other matter wants to be heard--I think it's going to be a little bit longer for me to get through this cross.

THE COURT: Okay.

MR. TAMBE: I just--

THE COURT: Do you mind, Mr. Lawrence?

MR. LAWRENCE: No.

THE COURT: I would very much like to let these other folks come and go. It's going to be very, very brief and happy.

MR. LAWRENCE: Happy?

THE COURT: Happy.

[UNRELATED CASE]

THE COURT: Mr. Lawrence would you tell Mr. Tambe that we're ready to roll?

MR. TAMBE: Let's go to Exhibit 101. It should be in your binder. That's a document you've seen before today,

correct?

MR. SHAPIRO: Let me find it first.

MR. TAMBE: Sure, absolutely. You can start at the bottom.

MR. SHAPIRO: Yes, I've read it over.

MR. TAMBE: So, this is an email exchange between you and members of your staff, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: And you're discussing the valuation in this email chain, Washington valuation versus the information you just obtained about the New Jersey Tobacco claim. Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. You start off this conversation. You forward the claim to your staff. Do you see that?

MR. SHAPIRO: That's correct.

MR. TAMBE: And you state in the second line, "As I mentioned, it has one really unusual feature, their FA versus Southwest got market quotations." FA is financial advisor, correct?

MR. SHAPIRO: That's correct.

MR. TAMBE: As you scroll up to the next email that's one of your staff, Lillian Chern, who's emailing you and Nat Singer. Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: And she's reporting on the New Jersey claim. She says, "For termination amounts priced on January 26th '09" and then she puts some information down there. Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. And her email suggests that there were quotes from Barclays and from Morgan Stanley, do you see that?

MR. SHAPIRO: I think those were the highs and the lows. It doesn't say those were all the quotes. We know they weren't.

MR. TAMBE: In fact there were additional quotes.

MR. SHAPIRO: There were two others.

MR. TAMBE: So, in January 2009 when you're calling every conceivable dealer and asking for interest on Tobacco FDAs and everyone says no, no, no to you, another financial advisor goes into that very same market, goes to Barclays, Morgan Stanley and gets quotes, correct?

MR. SHAPIRO: These are quotations that we wonder about the bona fides of. And that's what we're saying.

MR. TAMBE: The question was slightly different. Another FA goes into the market the same time you claim to have gone into the market and they get quotes, you don't.

MR. SHAPIRO: I'd ask for a clarification which is what do you mean by quotes? Are they valid quotes?

MR. TAMBE: Well, I mean what you meant down at the bottom of this page when you started this email chain off. Let's go to the bottom. You believed whatever First Southwest got was market quotations. That's how you described them.

MR. SHAPIRO: No, it's often hard to get the sense of someone's tone from an email, but my language has one really unusual feature and that's important because I'm questioning the validity of these quotes and, your Honor, I know much more about this now.

THE COURT: Hold on.

MR. SHAPIRO: Okay.

THE COURT: Hold on, Mr. Shapiro.

MR. SHAPIRO: Yeah.

THE COURT: Let's keep reading this email, okay?

MR. SHAPIRO: Okay.

THE COURT: Because it says Lillian, could you take a look at these quotes, page four of the PDF, and see what they would back into on the Washington claims the same underlying assumptions reached. So, you asked a member of your staff to look at these quotes. What we're trying to find out now is what were you thinking, what did you do and that's what counsel is trying to do.

MR. LAWRENCE: At an appropriate point if we could have a very short sidebar.

THE COURT: Okay. Please have a seat. Okay, I think

we’re back and we’re ready. Sorry for the interruption.

MR. LAWRENCE: Thank you, your Honor. I'm sorry.

THE COURT: I don’t remember where we left off.

MR. TAMBE: Could we just get the last Q&A read?

CLERK: Well, I mean what you meant down at the bottom of this page when you started this email chain off. Let’s go to the bottom. You believed whatever First Southwest got was market quotations. That’s how you described them.

No, it’s often hard to get the sense of someone’s tone from an email, but my language has one really unusual feature and that’s important because I'm questioning the validity of these quotes and--

MR. TAMBE: That’s fine. Thank you. All right, Mr. Shapiro, you’re absolutely right--it’s very hard to tell the tone from an email. But we don’t just have the tone to rely on, you’ve got your words, right?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. So on October 16th 2014 you gave another deposition. Would you pull that up please? Page 359 should be in the book, but it will come up on the screen in a minute. Page 359 line 18, that’s in the middle of your answer and you say there, “and I'm quoting from my email to Nat and Lillian at the bottom of Exhibit 50 their FA (FirstSouthwest) got market quotations.” So that was obviously a source of some interest.

The question goes on, “And why was that a source of interest?” Answer, “Because our experience had been that market quotations were not obtainable.” And then you’re asked specifically, “And when you say market quotations you’re referring to the process outlined in the RFA to solicit quotations from dealers, correct?” You answered, “Correct.”

That’s what you testified and that’s what you meant, isn’t that right, sir?

MR. SHAPIRO: They--my testimony is--

MR. TAMBE: Isn’t that what you testified to and isn’t that what you meant? That’s the question.

MR. SHAPIRO: Let me ask for a clarification. When--

MR. TAMBE: Answer the question please.

MR. SHAPIRO: I thought I'm allowed for a clarification.

THE COURT: Okay, but Mr. Shapiro--but--but--

MR. LAWRENCE: (Indiscernible) object to his compound. He can ask--

THE COURT: Okay.

MR. SHAPIRO: Yeah.

MR. LAWRENCE: --those questions separately.

THE COURT: We can uncompound the question, but when the question simply is, “Is that what you testified to” that’s a yes or no question, there’s no ambiguity.

MR. SHAPIRO: Correct.

THE COURT: Okay? All right. Why don't you ask--?

MR. TAMBE: Let's go back to Exhibit 101 and it's the next email up now back from Lillian Chern and Lillian responds to you and what she does is she takes the market quotation information that you forwarded her and she translates it into what it might mean for Washington Tobacco. Isn't that what she does?

MR. SHAPIRO: Yes.

MR. TAMBE: Right. And the low quote or the lowest claim value was from Morgan Stanley, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: And that's the same Morgan Stanley where Mr. Curry and Hasterok worked, correct?

MR. SHAPIRO: I believe there's only one.

MR. TAMBE: Only one. And there's only one municipal derivatives group at Morgan Stanley that would be quoting on products like this, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. And this is January 2009 when this quote is obtained, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. And we don't know from this email whether it was Mr. Curry or Mr. Hasterok or one of their colleagues who provided that, but you'd expect they'd get it right, right?

MR. SHAPIRO: No. We know they wouldn’t.

MR. TAMBE: And the calculation that Ms. Chern does is if you use the Morgan Stanley level of +14 basis points, the Washington TSA’s claim would not be 48 or 38, it would be $9 million, correct?

MR. SHAPIRO: The calculation using the Morgan Stanley quote would be $9 million.

MR. TAMBE: Now, I gather from some of your earlier answers you don't think much of these quotes.

MR. SHAPIRO: We know these quotes to be highly suspicious.

MR. TAMBE: So, not reliable.

MR. SHAPIRO: Not reliable, not conforming to the definition of market quotation. That's the most important thing.

MR. TAMBE: And so if presented to the Court they should be disregarded, that’s your view.

MR. SHAPIRO: Disregard--they could be looked at for indicators of certain things, Mr. Tambe, but they wouldn't be bona fide market quotations.

MR. TAMBE: How about submitting a claim to a bankruptcy court under penalty of perjury? Are they good for that purpose?

MR. SHAPIRO: You’re--

MR. LAWRENCE: I'm going to object. It’s

argumentative, calls for speculation about New Jersey's--

MR. TAMBE: Are they reliable--I'm sorry.

THE COURT: Well, ask it slightly--ask it in a different way, Mr. Tambe.

MR. TAMBE: Do you believe they're reliable enough to be submitted in a court proceeding, sir?

MR. SHAPIRO: In my opinion, no.

MR. TAMBE: Okay. Let's take a look at Exhibit 73. I'm going to turn your attention to the fourth page of that document. It's the last four pages of the document.

THE COURT: Okay, I think this is one of the ones that you gave me separately, right?

MR. TAMBE: Yes.

THE COURT: It's the Virginia proof of claim.

MR. TAMBE: It's the Virginia proof of claim. That's right, your Honor.

THE COURT: Okay.

MR. SHAPIRO: Mr. Tambe, Exhibit 73, I only have a total of five pages and the fourth is some ccs.

MR. TAMBE: You don't have a big stack of other claim papers, it's the part that we want to draw your attention to.

MR. SHAPIRO: No, it's literally just this little thing here.

MR. TAMBE: I'm getting the full copy of Exhibit 73 and I think if you turn to the back of that stack it's the

letter which has the letterhead of the Commonwealth of Virginia dated April 21, 2009.

MR. SHAPIRO: What's labeled Exhibit E in the back?

MR. TAMBE: Can I come over and take a look at it?

MR. SHAPIRO: Yeah. Is that the one you mean?

MR. TAMBE: I believe that's the one.

MR. SHAPIRO: Okay.

MR. TAMBE: You'll see this is a letter dated April 21, 2009, right?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. And if you go down to the second paragraph, the last sentence of the second paragraph you have Tobacco submitting a claim and they state in their filing with the court such amount determined pursuant to the definition of termination amount in Article One of the investment agreement by calculating the arithmetic mean market quotations without regard to quotations having the highest and lowest levels. Do you see that?

MR. LAWRENCE: I'm going to object without laying any foundation of Mr. Shapiro's knowledge about this.

THE COURT: Okay, well so far we're just reading.

MR. LAWRENCE: I know, but it's not--you can correct me if I'm wrong. I don't think it's proper to read from an objected to document where your Honor has ruled that the only basis to get somebody else's claim in is if Mr. Shapiro has

some personal knowledge.

THE COURT: I don’t--I don’t think that’s quite what the ruling was so let’s take--let’s break it down, right?

So this is a proof of claim that was filed on the docket of this case.

MR. LAWRENCE: Sure.

THE COURT: So, as such I can take judicial notice of the fact that it’s filed in the docket of the case. Now the question becomes because it’s hearsay--

MR. LAWRENCE: It is hearsay.

THE COURT: --notwithstanding that it’s submitted by another state, the question becomes does it--anything in here come in for the truth.

MR. LAWRENCE: Correct.

THE COURT: Right. So nothing is going to come in for the truth, okay? So subject to that the question is what’s the question for this witness?

MR. TAMBE: And for present purposes we're not seeking to have it admitted for the truth of the matter.

THE COURT: Okay.

MR. TAMBE: The question to the witness is you see from this letter that Virginia claima to have obtained market quotations. That’s how you read that language.

MR. SHAPIRO: That’s how I--

MR. LAWRENCE: Again, I would object to that question

because it's a back door way to get at the truth if Mr. Shapiro--

THE COURT: I am telling you I am not going to admit this into evidence for the truth that these market quotes reflected in this proof of claim exist.

MR. LAWRENCE: Or that the market process was in fact done because we don't know what was done.

THE COURT: By Virginia?

MR. LAWRENCE: We don't know what--it's hearsay what Virginia did.

THE COURT: Totally, absolutely. Okay, that notwithstanding I still think that there are questions that can be properly asked if Mr. Tambe wants to ask them. Okay?

MR. TAMBE: Let's turn to the first page of the proof of claim, the first page of the Exhibit, Exhibit 73. And just to be clear, we talk about the Commonwealth of Virginia, this is a filing--the creditor is the Commonwealth of Virginia Tobacco Settlement Financing Corporation. Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: And you recognize, because you're in the market, that's another one of these tobacco finance agencies, correct?

MR. SHAPIRO: It sounds like it.

MR. TAMBE: It sounds--

MR. SHAPIRO: I've never dealt with them.

MR. TAMBE: Never dealt with them. Well, you didn't deal with many tobacco financing authorities, did you sir?

MR. SHAPIRO: We've dealt with many of them since the Lehman bankruptcy.

MR. TAMBE: After the Lehman.

MR. SHAPIRO: Yeah.

MR. TAMBE: So before the Lehman bankruptcy you really hadn't dealt with any of the tobacco financing agencies.

MR. SHAPIRO: I'd have to go back and see. I testified we hadn't bid out a reserve fund agreement for a tobacco agency, but, you know, I worked, as you know, for California, New York, you know, advised Ohio as well as Washington so there are some big ones there.

MR. TAMBE: Let's turn to Exhibit 44. And you recognize this document, don't you sir?

MR. SHAPIRO: Give me a minute if you would please. Yes I do.

MR. TAMBE: Right and this is a document you saw in discovery in this case, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: And you understand that what this document is is a quote solicitation by Lehman to Wachovia and a response from Wachovia, correct?

MR. SHAPIRO: Right.

MR. TAMBE: And you know Mr. Casey Rogers at

Wachovia?

MR. SHAPIRO: I do.

MR. TAMBE: He leads their municipal derivatives group?

MR. SHAPIRO: I believe that's correct.

MR. TAMBE: So, known in the market, right?

MR. SHAPIRO: Known by me.

MR. TAMBE: Do you know the market?

MR. SHAPIRO: I think so.

MR. TAMBE: Okay.

MR. SHAPIRO: I can't say what rest of the market knows however.

MR. TAMBE: And you see on the last page of this exhibit, Exhibit 44, there is an entry that says Wachovia's position in quote transaction fixed rate pair to enter into the quote transaction Wachovia would have required you to pay Wachovia the upfront payment and then the upfront payment is $6.225 million. Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: And if you would put that in claim terminology that would equate to a claim of about $6.2 million. That's right?

MR. SHAPIRO: That's correct.

MR. TAMBE: Okay.

MR. SHAPIRO: You know, plus I don't think this

includes the unpaid amounts, but it would a component of it. I think it explicitly says it does not include that if you go through it.

MR. TAMBE: And this is a piece of information that you gave no weight to whatsoever when you submitted your expert report in this case, correct?

MR. SHAPIRO: Wachovia had turned us down. Wells Fargo, which was currently under the same ownership, had turned us down. They said they did not participate in the market. We would give this no weight and if we read this quotation it's very clear on that from his own notes that they're saying this is not an offer. We wouldn't enter into it. We haven't even gotten credit approval.

MR. TAMBE: All right. The question really was, if you'd read the question back.

CLERK: And this is a piece of information that you gave no weight to whatsoever when you submitted your expert report in this case, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: Now, Mr. Cook and Mr. Herman testified I believe on direct that you did get some indicative quotes in connection with Bear agreement. Were they wrong about that?

MR. SHAPIRO: Indicative quotes? I'd have to see the context of their testimony.

MR. TAMBE: So as you sit here you have absolutely no

recollection of having gotten any type of quote, however indicative, and provided that information to Mr. Cook or Mr. Herman.

MR. SHAPIRO: There is a definitional issue of what is a value market quotation versus what is somebody throwing out an indicative quote and I think you know that.

MR. TAMBE: Let's have the question read back again so you can answer the question I asked you.

CLERK: So as you sit here you have absolutely no recollection of having gotten any type of quote, however indicative, and provided that information to Mr. Cook or Mr. Herman.

MR. TAMBE: Your answer please.

MR. SHAPIRO: I don't--I don't--I'm not recalling.

MR. TAMBE: In fact I believe your testimony to my earlier questions was no one responded to you.

MR. SHAPIRO: For market quotations, absolutely.

MR. TAMBE: Let's go back to your report and that's Exhibit W. Now we had some discussion yesterday about the model and inputs in the model. Let's talk about your memo because you didn't run the model, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: So, but these words, whether you wrote them or not, you're accepting and adopting these words as if they were your own, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. So let's go to page two of the memo and it's the first full paragraph at the top of the page. That’s your methodology, correct?

MR. SHAPIRO: Allow me a minute just to reread it. That is correct.

MR. TAMBE: And would you say the methodology is you look at the two legs of the transaction, correct?

MR. SHAPIRO: Right.

MR. TAMBE: It’s got the fixed leg and that’s not in dispute, correct?

MR. SHAPIRO: So your analysis is really about a floating leg and how you derive the floating leg, correct?

MR. SHAPIRO: The floating leg and the spread.

MR. TAMBE: Well, what you really say there is not a floating leg and a spread. What you say is the value of the floating leg should represent the value of the securities which are going to be delivered and then you say and also incorporate an ongoing credit risk, etcetera.

So the first thin you're doing is a floating leg should represent the value of the securities which are going to be delivered. Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: And it’s to that floating leg that you're going to incorporate an ongoing credit risk of the RFA,

correct?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay.

MR. SHAPIRO: As I've--I've testified on this already that, you know, you look at the spread for the entire transaction, but you assign it here for modeling purposes.

MR. TAMBE: And in fact, when you go over to page three of your memo, and if you can enlarge that box that appears in the middle of the page, what you're doing there is putting in a table format what you had described earlier on page two, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: So, when it says CP spread there that's a CP spread to the LIBOR rate, correct?

MR. SHAPIRO: To the--I would say it's looking at it to the transaction. you have to do it that way. This is the way it--you have to set up the model, Mr. Tambe, but you get an absurdity if you say floating rates LIBOR is at 20 basis points and you put in Lehman's spread of 105.

MR. TAMBE: I couldn't agree with you more. Your model is an absurdity.

MR. SHAPIRO: I--

MR. TAMBE: All right?

MR. SHAPIRO: I mean--

THE COURT: All right.

MR. SHAPIRO: --everybody's is.

THE COURT: All right.

MR. TAMBE: So let's go--let's again use your words.

THE COURT: Let--let--let--

MR. TAMBE: Yeah. I'm sorry, your Honor.

THE COURT: Let's keep going.

MR. TAMBE: When you talk about CP spread there you describe what you mean by CP spread on the previous page. It's the commercial paper spread. You're trying to figure out the value of the securities that are going to be delivered and in your case you said that was going to be commercial paper, correct?

MR. SHAPIRO: Not the value, the spread, the differential between it and LIBOR.

MR. TAMBE: Well let's again go back to your words because you said something different on page two. Let's go to page two. In the middle of that paragraph, the value of the floating leg should represent the value of the securities which are going to be delivered. Those are your words, correct?

MR. SHAPIRO: The value relative to LIBOR. That's the spread.

MR. TAMBE: It's the value of the securities, correct?

MR. SHAPIRO: Relative to LIBOR.

MR. TAMBE: Okay. And therefore when you say CP

spread on the next page, you're talking about a CP spread to LIBOR, correct?

MR. SHAPIRO: Exactly.

MR. TAMBE: Okay. So, now let's go back to the former. So, the first thing you do to LIBOR in your calculation is you add 66.6 to it, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: Then you subtract from LIBOR 429 basis points, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: And then you subtract another 25 basis points, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: And the total there, 3.874 is what you subtract from LIBOR, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. And when LIBOR is below 3.8 percent you get a negative number, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. And that's how you're valuing the floating leg, correct?

MR. SHAPIRO: This is--again, this is how you're--

MR. TAMBE: Is that how you're valuing the floating leg, sir?

MR. SHAPIRO: This is how you're valuing--

THE COURT: Mr. Shapiro, I'm going to--

MR. SHAPIRO: No, the answer is no, your Honor.

THE COURT: No--

MR. SHAPIRO: I'm sorry.

THE COURT: Thank you.

MR. SHAPIRO: Okay.

THE COURT: Please, I don’t want to have to tell you again.

MR. SHAPIRO: I understand.

THE COURT: Okay. Thank you.

MR. TAMBE: Just going back to the first page of this memorandum, the first page of the memo, at the top of the page, actually the heading, the concerning piece, you say this is a memorandum concerning the loss, capital L, loss for TSA’s reserved fund agreement. Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: Right. And you would agree with me that when you say loss the way you look at loss it's no different than a valuation of the transaction, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: In fact prior versions of this memo said concerning valuation of the transaction, correct?

MR. SHAPIRO: It--I should clarify if I can.

MR. TAMBE: You’ve answered the question. You’ve answered the question, sir.

MR. SHAPIRO: There's a slight difference between--

MR. TAMBE: You've answered the question, sir.

MR. SHAPIRO: There's a difference between valuation and loss.

THE COURT: Okay, Mr. Shapiro, my patience is beginning to run a little thin because I think I can no longer count on one hand the number of times that I've asked you--

MR. SHAPIRO: Okay. I'm--

THE COURT: --to please--

MR. SHAPIRO: I apologize.

THE COURT: --answer the question. I know it's very difficult because you have a lot of knowledge. Mr. Lawrence is going to spend as much time as he needs to give you an opportunity to clarify all of your answers on redirect, all right?

MR. SHAPIRO: I apologize.

THE COURT: Thank you.

MR. TAMBE: I believe the last think you said there's a difference between valuation and loss. Let's go to your October 2014 transcript page 231.

MR. SHAPIRO: Can you give me the exhibit number?

MR. TAMBE: It's a transcript. It's the third transcript. October 16th, 331. Starting on line--are you there, sir?

MR. SHAPIRO: I'm not yet.

MR. TAMBE: Just let me know when you’re there.

MR. SHAPIRO: Yeah. I'm with you.

MR. TAMBE: So, line 13 you were asked the following question, “So depending it doesn’t make any difference whether you’re calculating TSA’s loss or whether you’re determining the value of the reserve fund agreement, you start by analyzing the reserve fund agreement’s cash flows, correct?” There is an objection. You can answer that. “I would say that’s correct.” “And that there are two cash flows that need to be analyzed as we discussed--the fixed leg and the floating leg, correct?” You said, “Correct.” “Regardless of whether you’re valuing the reserve fund agreement or calculating loss, correct?” And you said, “Right.” Did I read that correctly, sir?

MR. SHAPIRO: Correct.

MR. TAMBE: Let’s turn to Exhibit 63 please. You recognize this is another one of the screenshots generated by your model by, correct?

MR. SHAPIRO: By Principia.

MR. TAMBE: Well that’s your model, right?

MR. SHAPIRO: Yeah.

MR. TAMBE: Okay. And this is the one that goes out to the correct maturity date, 2032, correct?

MR. SHAPIRO: The first page shows 2042, the second page has 2032.

MR. TAMBE: Okay. So, the second page. The second

page has the right maturity?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. And the second page has the fixed leg at 4.484, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: And it has the floating leg at three-month LIBOR -3.874, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. And this is the document that was prepared by Mr. Vergara for purposes of this matter, correct?

MR. SHAPIRO: I don't think so, no.

MR. TAMBE: Okay. When was this prepared.

CLERK: Sorry, what was your answer?

MR. SHAPIRO: I don’t think so.

CLERK: Okay.

MR. TAMBE: By whom was it prepared?

MR. SHAPIRO: I believe this one showing the 2032 date was revised at a later date when we had the 2032 knowledge as I testified and that was--I believe that was done by Lillian Chern.

MR. TAMBE: Okay, but done by your staff.

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. And this supports the first page of your expert submission where the number goes to $38 million.

MR. SHAPIRO: That's correct.

MR. TAMBE: Okay. All right, let's go back to your report. Now, on page three, and if you can blow up again the box. So we just discussed a few minutes ago that what that 3.874 number is is LIBOR minus 3.874, correct?

MR. SHAPIRO: We discussed that.

MR. TAMBE: Okay. Yesterday I think you testified what the Court should do is simply subtract 3.874 from 4.484 to arrive at 61 basis points and that's the answer, right?

MR. SHAPIRO: That would--that's--that's a shorthand way of looking at it.

MR. TAMBE: Well, it's a shorthand way of doing it that skips passed the stuff that's absurd, correct? It just ignores LIBOR.

MR. SHAPIRO: I disagree.

MR. TAMBE: That total that appears in that last box is not just minus 3.874, it's LIBOR minus 3.874, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: And that's what you're comparing to 4.484, right?

MR. SHAPIRO: Yes.

MR. TAMBE: Because that's your--if your real floating leg is LIBOR minus 3.874, not just minus 3.874.

MR. SHAPIRO: No.

MR. TAMBE: So your shorthand answer of 61 basis points was designed to avoid the absurdity, correct?

MR. SHAPIRO: No.

MR. TAMBE: Debtor's Exhibit 31 please. This is a two-page email and you'll see it starts on page two by an email from Mr. Cook to you. Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: And it continues on to page one with a discussion between you and members of your staff. Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: And this is right before you were engaged by the Washington TSA?

MR. SHAPIRO: Around that time.

MR. TAMBE: Well the first email on page two is sort of a kickoff email, correct?

MR. SHAPIRO: That's right.

MR. TAMBE: And the engagement letter is not yet signed.

MR. SHAPIRO: Right.

MR. TAMBE: And the first thing you do at the bottom of page two, the day after you get it from Mr. Cook is you send, the bottom of page one--you send the bottom email, you send the document over to James Vergara, right?

MR. SHAPIRO: And copy Mr. Singer.

MR. TAMBE: Right. And you say, "Here's the document relating to the agreement" and you ask Mr. Vergara please take

a look and figure out how we'd put a value on this. Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: And you'll see right above that there's an answer from Mr. Singer to you and Mr. Vergara. Let's talk about the first two lines. And I think you testified earlier that you're doing work with the Ohio Tobacco Authority versus Lehman and Mr. Singer is talking about that, right?

MR. SHAPIRO: Correct.

MR. TAMBE: And he says, "We dealt with this issue on the Ohio Tobacco deal last month. PFM was coming up with numbers that showed Ohio owed Lehman a termination amount while we came up with a huge figure that Lehman owed the client." Do you see that?

MR. SHAPIRO: Okay, it says well as the following sentence.

MR. TAMBE: There's a lot more there, but the first two sentences, it says that, right?

MR. SHAPIRO: Yes.

MR. TAMBE: And that's what you'd done. You'd come up with a huge figure that showed Lehman owed money to Ohio.

MR. SHAPIRO: In Nat's words, but I think he's accurate.

MR. TAMBE: One of your co-owners, right? One of the co-owners of Swap Financial Group?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. The guy with all the experience from Bear Stearns.

MR. SHAPIRO: Yes, excellent experience.

MR. TAMBE: Okay. And you'll see in the middle of this email what Mr. Singer says is, "I would assume that a current FBA would be priced well below LIBOR as the last trades were occurring around LIBOR minus 150-ish." Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: And 150 is exactly the round number that Mr. Vergara uses in the very first calculation he does, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: So right from Nat Singer's lips into the model.

MR. SHAPIRO: I can't say that.

MR. TAMBE: Well, you can't say much about the model because you don't know how Mr. Vergara came up with the 150.

MR. SHAPIRO: I don't know how he came up with the 150.

MR. TAMBE: And in fact you found it suspicious. You thought it was too round a number.

MR. SHAPIRO: Yes.

MR. TAMBE: Yeah. Okay. Let's go to the top of this email. It's the same email chain, Exhibit 31. There's

discussion at the top about an ING GIC, do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: And this is a point in time when you're draft engagement letter with the TSA contemplates that you'd be advising both on replacement as well as valuation, correct?

MR. SHAPIRO: I believe so.

MR. TAMBE: Okay. So, at this stage before the engagement letter is signed you are looking not just at valuation issues, but you're looking at potential replacement issues.

MR. SHAPIRO: Yes.

MR. TAMBE: And you knew that a GIC was an eligible investment under the bond indenture, correct?

MR. SHAPIRO: I don't--on this date I honestly don't think we had read the bond indenture. We would have assumed it looked like a normal bond indenture, so yes, we were assuming that, but I didn't know that.

MR. TAMBE: That's the case--you were assuming that for purposes of the Washington TSA back then.

MR. SHAPIRO: That's right.

MR. TAMBE: And you know sitting here on behalf of Washington TSA today witnesses have testified that it was an eligible investment.

MR. SHAPIRO: Our assumption turned out to be correct.

MR. TAMBE: And it was 5.25 percent is what was being offered there, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. And you'll see two lines down you say, "This offers a solution to the replacement issue, but not to the valuation issue."

MR. SHAPIRO: I don't say that. This is Nat Singer.

MR. TAMBE: Your partner.

MR. SHAPIRO: Yeah.

MR. TAMBE: Okay. Does that suggest to you that you were going to replace the transaction earn 5.25 percent, but run a very different process to value this transaction?

MR. SHAPIRO: No.

MR. TAMBE: Let's go on to this email. The next thing Mr. Singer says is, "We could try to get MQs" and you recognize that as market quotations, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: "But we may be better off finding out the levels of the last real executions for these agreements." Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: I thought you just told us following the Lehman bankruptcy there was no real executions in this market.

MR. SHAPIRO: This--

MR. TAMBE: Isn't that what you said?

MR. SHAPIRO: Yes, but that doesn't contradict this.

MR. TAMBE: Okay. So you were going to go back to transactions that occurred months and months ago before the financial crisis and use that as a basis.

MR. SHAPIRO: And look at them because they were real.

MR. TAMBE: And in any of the materials that you submitted with your expert report you haven't provided us with any details of any such historic transactions other than the 2002 Washington TSA itself, right?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay.

THE COURT: Can I just clarify one thing? So, you're saying that your understanding of what Mr. Singer was telling you is that, "But we may be better off finding out the levels of the last real executions for these agreements." So, and you just clarified that that means not indicative quotes or market quotes, but deals that actually closed, right?

MR. SHAPIRO: Absolutely, your Honor.

THE COURT: Okay, but the date of this email is December 2008, right?

MR. SHAPIRO: Correct.

THE COURT: Okay. So, but you've already testified that there was turmoil.

MR. SHAPIRO: Yeah.

THE COURT: I mean we were--everybody wasn't sleeping at night because we didn't know what was going to happen, right?

MR. SHAPIRO: Right.

THE COURT: So, what does that--I don't understand what that means. There would not have been--your testimony is that there would not have been any executions between the date of the first Lehman filing, for example, and the date of this.

MR. SHAPIRO: It would have meant going back before that Lehman filing.

THE COURT: Okay.

MR. SHAPIRO: Yeah.

THE COURT: So why would you have done that because then the world dramatically changed on the day of the Lehman filing so those wouldn't have been indicative of anything and that's what you and Mr. Curry and Mr. Hasterok have now spent three days telling me is that the world is dramatically different, yield curves don't matter, nothing matters anymore because Lehman happened? So I don't understand how you can say that what you were going to do to calculate a termination amount is look at what happened on real transactions that closed before the cataclysm.

MR. SHAPIRO: We'd have that--

THE COURT: Can you clarify that for me?

MR. SHAPIRO: Yeah, if I can. We have an indication

of where markets were pricing in the last trades and then we'd have to correct for interest rate movements and for spread widening.

THE COURT: Okay.

MR. SHAPIRO: So it's just another good indicator. We want, you know, an execution is a real indication when somebody has to put their money on the line.

THE COURT: Okay, thank you.

MR. SHAPIRO: Okay.

MR. TAMBE: The process that you just described to the Court, there's no documents, no discussion of that process in your filings here, correct?

MR. SHAPIRO: That's correct.

MR. TAMBE: You could have done it, but you didn't do it.

MR. SHAPIRO: I don't believe we did. No, Nat was making a suggestion.

MR. TAMBE: Well, in fact the suggestion he's making is in the next line, right? The suggestion he's really making is we could price the agreements based on those levels and adjust for bid/offer, declining credit quality, etcetera. Do you see that?

MR. SHAPIRO: That's correct. Just what I said to the judge.

MR. TAMBE: And then he says, without having done any

valuation at this point, correct, "Any way you go about it, Lehman will owe the issuer a boatload of money." Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. So, further down this email he is signaled that the level should be L minus 150. In this part of the email he says, "Any way you go about it, Lehman will owe the issuer a boatload of money." Isn't that right, sir?

MR. SHAPIRO: Yes.

MR. TAMBE: And those were Mr. Vergara's instructions, correct?

MR. SHAPIRO: No.

MR. TAMBE: Okay. In fact that view about owing Lehman a boatload of money was a view that was shared by your client, correct, the Washington TSA?

MR. SHAPIRO: I think what--I can't speak to their view.

MR. TAMBE: Well, you can speak to conversations you've had with them, can't you sir?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. So let's look at Exhibit 99. You had--this is an email exchange, it includes you and various clients, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. And if you turn to page--

MR. SHAPIRO: And attorneys as well.

MR. TAMBE: And attorneys as well. And if you turn to page two of this document, the middle of that page, Mr. Herman says to you, “It will be a cold day in hell that we pay Lehman anything.” Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay and that’s what Mr. Herman said to you, correct?

MR. SHAPIRO: That’s what he wrote to me.

MR. TAMBE: And you wrote back to Mr. Herman on page one, correct, the first paragraph at the top and you said to him, “There’s less than zero chance that you will have to pay Lehman anything.” Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: You understood the way the RFA worked is depending on where interest rates were Lehman could be in the money or out of the money.

MR. SHAPIRO: Exactly.

MR. TAMBE: And if you push the interest rates down far enough Lehman would never be owed anything by the TSA, correct?

MR. SHAPIRO: If we pushed the interest rates?

MR. TAMBE: If one did.

MR. SHAPIRO: Okay. Yes, if interest rates were substantially lower Lehman would clearly owe and they were

much, much lower.

MR. TAMBE: Can we just have a five minute break, your Honor?

THE COURT: Sure. All right, Mr. Shapiro, let's take a five minute break. We'll come back. How much more do you think you have, Mr. Tambe?

MR. TAMBE: I think it's about 15 minutes or so.

THE COURT: Okay, very good. Please have a seat everyone. Let's keep going. I have Lehman hearings all day tomorrow. I'm beginning to think ahead. We will finish today, correct Mr. Lawrence?

MR. LAWRENCE: I believe so. Most of the time is Lehman's time today so I can't control that.

THE COURT: Okay. All right, let's keep going.

MR. TAMBE: Sir, if you could turn to debtor's Exhibit 111. That's a document that you prepared for Washington TSA, correct?

MR. SHAPIRO: Debtor's? I'm sorry.

MR. TAMBE: 111.

MR. SHAPIRO: I got to 113 by accident I was looking at. Yes, that's correct.

MR. TAMBE: And this is prepared in November 2011, correct?

MR. SHAPIRO: It's dated November 16th 2011.

MR. TAMBE: Okay. And you're setting forth for the

TSA’s consideration various investment options, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: And you had reviewed the indenture and the governing documents before you made these suggestions, correct?

MR. SHAPIRO: Either I had reviewed them or I had relied on counsel to review them.

MR. TAMBE: So you were suggesting things and making recommendations to TSA for things that they could under the existing documentation invest in, correct?

MR. SHAPIRO: Did I believe they could, yes.

MR. TAMBE: And I said existing documentation because some of your clients in fact amended their indentures to permit different investments, correct?

MR. SHAPIRO: I'm not remembering that anybody amended--it’s very hard to amend an indenture.

MR. TAMBE: Certainly given your experience in the muni derivatives space you’re familiar with the concept of issuers amending indentures and other documents to give them flexibility when market conditions change.

MR. SHAPIRO: Very, very rare.

MR. TAMBE: But it happens.

MR. SHAPIRO: Yes.

MR. TAMBE: All right and the proposal that you make to the Washington TSA is a tiered proposal, correct? Different

tranches.

MR. SHAPIRO: Yes.

MR. TAMBE: And you say on page three of this document at the bottom, for the proposal you're making that's an average deal of approximately 2.6 percent. Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. And at this point in 2011 interest rates were lower than they had been in 2009, correct?

MR. SHAPIRO: It depends what point in time. I would have to look at a rate chart. 2009 they gyrated.

MR. TAMBE: But in 2011 they were lower than they were in 2009, correct?

MR. SHAPIRO: It depends on the point in time, but we could pop that up. That's--

MR. TAMBE: And what rates would you look at to make that determination?

MR. SHAPIRO: To make which determination?

MR. TAMBE: Whether the rates in 2011 were less than comparable rates in 2009.

MR. SHAPIRO: It would depend upon the instrument we were looking at. In other words, if it were short-term we'd compare short-term rates. You know, for example, if you look on the memo you're referring to, tranche one reference three-month LIBOR. So we'd look at where three-month LIBOR was. Tranche two I believe references a short-term CD so we'd look

at that by looking at where interest rates of that tenor were. I’d have to go through the memo, but I know it wasn’t long-term rates.

MR. TAMBE: And there would be market data available for you even today to go back to March of 2009 and say what would the comparable rates be for 2009, correct?

MR. SHAPIRO: That's correct.

MR. TAMBE: Okay. None of this stuff was so esoteric that there were no rates for them in March 2009.

MR. SHAPIRO: No.

MR. TAMBE: Okay. And that would be publicly available market data, correct?

MR. SHAPIRO: I believe so.

MR. TAMBE: Okay. This proposal wasn’t accepted by the TSA, was it?

MR. SHAPIRO: No.

MR. TAMBE: Okay. And I believe you heard Mr. Cook it was testify that he didn’t make certain investments because he thought interest rates were going to go higher.

MR. SHAPIRO: You excluded me from Mr. Cook’s testimony so I did not hear that.

MR. TAMBE: Has Mr. Cook ever told you, outside of this courtroom, that he believed interest rates were going to go higher?

MR. SHAPIRO: I don’t think he ever gave me an

interest rate view per se that he had.

MR. TAMBE: Well, when he decided not to make this investment and continued to earn less than 50 basis points on the reserve fund, did you ask Mr. Cook, hey guys, you could make 2.6 percent, why are you investing at 50 basis points?

MR. SHAPIRO: We had a lot of conversations around that question.

MR. TAMBE: Right. And in any of those did Mr. Cook say to you the reason I'm not going for 2.6 percent, what’s that, 200 basis points above your model is because I think interest rates are going to rise higher?

MR. SHAPIRO: He said that he was concerned about the possibility of that among other things like the risk of these instruments.

MR. TAMBE: No further questions, your Honor.

THE COURT: Before you sit down, you indicate in this exhibit in paragraph C that even the GIC tranche would meet the investment requirements, right?

MR. SHAPIRO: Yes.

THE COURT: Okay. So, turning to the first page of this exhibit, the third paragraph, you say, “Two key constraints inhibit TSA’s ability to regain the bargain it lost when Lehman defaulted.”

MR. SHAPIRO: Yes.

THE COURT: Okay. Is that--in your mind in kind of

non-technical terms is that the same concept as the calculation of the termination amount under the RFA?

MR. SHAPIRO: Yes.

THE COURT: It is. So the purpose of the calculation of the termination amount is to put TSA where it would have been had Lehman performed faithfully every six months until 2032, right?

MR. SHAPIRO: Yeah. The same risks and rewards, yes.

THE COURT: Well, under the RFA, right?

MR. SHAPIRO: Yes, exactly.

THE COURT: They got their guaranteed rate and in this memo you say that that was basically round numbers $2 million a year, right? You say, “The annual earnings on the reserve have plummeted from more than $2 million to approximately $30,000.”

MR. SHAPIRO: Yes.

THE COURT: Okay. So, I'm just trying to ask you to do some very simple back of the envelope math, right? So, the rejection is in 2009. We’ve got 23 years left, right?

MR. SHAPIRO: Yes.

THE COURT: So it would have been--what TSA would have gotten would have been roughly 23 times $2 million?

MR. SHAPIRO: I--yeah there were--I think even--besides I think there were 47 semi-annual periods remaining.

THE COURT: Okay.

MR. SHAPIRO: Each one was $1 million so $47 million.

THE COURT: Okay.

MR. SHAPIRO: Yeah.

THE COURT: So, $47 million. So, they're not getting that from Lehman and now we're trying to put them in the position they would have been in, right?

MR. SHAPIRO: Put them closer, yeah.

THE COURT: Put them closer. So, if they had done this, which you had suggested, they would have been 1.8 percent, 180 basis points closer.

MR. SHAPIRO: I--that's--that sounds--

THE COURT: Hypothetically, right?

MR. SHAPIRO: Yeah, I'm not doing the math, but you're on the right--

THE COURT: 2.6 versus the 4.4, right?

MR. SHAPIRO: Yeah, although I--technically if they were getting, what did we say, 30 basis points? So, in other words they're 230 basis points closer.

THE COURT: Yes.

MR. SHAPIRO: Yeah.

THE COURT: Okay. So then my final question is if you look at the total amount of payments that they would have gotten if Lehman had continued to perform, so did you do--does your calculation, which I understand is based off of the model that you ran, but does it coincide with a present value

determination of that stream of payments?

MR. SHAPIRO: That stream of payments, the math we just did, 47 semi-annual--

THE COURT: Right.

MR. SHAPIRO: --$ million a year.

THE COURT: Right.

MR. SHAPIRO: If you present value--

THE COURT: Present value it.

MR. SHAPIRO: --that back--

THE COURT: Back.

MR. SHAPIRO: You should get to a, and depending again on what rate you use for present value, you should get to a lower number because that will get you to a zero reinvest rate. Right, because you're--

THE COURT: Okay.

MR. SHAPIRO: --just looking at that. Remember there is some amount of money that the dealer would make on it, in other words on the floating leg. So, you know, if we're thinking--

THE COURT: Okay, that's not--that's a different answer than what I--I'm simply asking--

MR. SHAPIRO: Yes.

THE COURT: I am trying to go through the brain teaser exercise of forgetting about formulas and curves, simply they were going to get $2 million a year roughly--

MR. SHAPIRO: Yeah.

THE COURT: --okay, over 23 more years if life had continued as, you know, we thought it would and then if you present value that back today, right, someone would pay today for that income stream what would that number be, the $37 million that you have presented as your valu--as the claim amount.

MR. SHAPIRO: It should be somewhat higher. That is the loss of all of that would be somewhat higher because that would assume you're replacing the 4.484 with a zero instead of replacing the 4.484 with a, you know, to take the Hasterok and Curry example, with 65 basis points. So if you replace it with zero you’re out all of that money or if you replace it with--

THE COURT: That’s--

MR. SHAPIRO: Does that make sense?

THE COURT: That’s not the--that’s not the question that I'm asking, but it may be that my expertise--I’ve reached the end of my expertise so I'm going to stop.

MR. SHAPIRO: If you lost 100 percent, you’re right.

MR. TAMBE: Well, all right--

THE COURT: Go ahead.

MR. TAMBE: Can I ask a follow up question?

THE COURT: Go ahead.

MR. TAMBE: If they simply stuck the money in a mattress for the next 23 years, didn’t invest in anything and

therefore they're losing 4.484 for 23 years, what's the present value of that stream?

MR. SHAPIRO: The present value of that stream, again depending upon the rate you would apply, should--

MR. TAMBE: What rate does your model apply?

MR. SHAPIRO: To mattress deposits?

MR. TAMBE: No, to the fixed leg.

THE COURT: That's the question I'm trying to ask.

MR. TAMBE: That's the question.

THE COURT: Thank you.

MR. SHAPIRO: Yeah. Okay, if you--if we used--if we present valued it at a--it's somewhat sensitive to that present value discount rate.

MR. TAMBE: It's a lot sensitive to that.

MR. SHAPIRO: Yeah. Well, it's not hugely, hugely sensitive. You're not going to turn it negative.

MR. TAMBE: Well it cost the TSA, what, 10 percent to borrow money?

MR. SHAPIRO: Well, the bonds were trading at 10 percent in March of 2009. But, you know, that's not normally the discount rate you'd use, you know, any more than Lehman would apply in its models a discount rate of its borrowing rate of 13.5 or 14.5 percent.

MR. TAMBE: You mean Lehman in bankruptcy.

MR. SHAPIRO: Yes, that's right. That's what I mean.

MR. TAMBE: Right. No further questions.

THE COURT: Okay, thank you. Mr. Lawrence?

MR. LAWRENCE: Sorry, this is not connecting up just right. If you could call up exhibits as I call them I'd appreciate it. Let's start with Exhibit 111, debtor's Exhibit 111.

THE COURT: What was the number? I'm sorry.

MR. LAWRENCE: 111.

THE COURT: 111.

MR. LAWRENCE: It's the one we were just talking about.

THE COURT: Okay.

MR. LAWRENCE: So, the first question I'm going to ask you is whether or not the, and I think you mentioned this, could you explain why the risk profile of these investments are different than the risk profile under the RFA?

MR. SHAPIRO: Yes. In two of these investments, the GIC and the CD, the authority, the agency authority would be--would be exposed to the risk of loss of all of its principle, an exposure it did not have under the RFA.

It additionally beyond that, under the RFA, as we're here to debate, you know, on the value of theirs--if the provider, the dealer, the bank defaults you don't--not only is your principle not at risk, but you also have the right to collect the future earnings that were promised to you. Under a

GIC you normally don't have that. I'm not sure how CDs work that well. I don't think you have it with a CD either.

MR. LAWRENCE: And what investments were available to TSA that would mirror the risk profile of the RFA?

MR. SHAPIRO: It would have no principle risk and it would have the--a breakage where you're entitled to the future interest that you were promised.

MR. LAWRENCE: Whatever the RFA risk is.

MR. SHAPIRO: Yes, that's just to summarize that as the two key profile points. You know, there are cash investments where you do not put principle at risk and what I would call near cash short-term investments. You know, nothing else quite mirrors the same risk.

MR. LAWRENCE: Could you describe specifically what some of those--for example, can you tell me whether or not a money market investment is the type of investment you're talking about?

MR. SHAPIRO: Yeah. It depends on the money market investment. There are money markets which consists purely of government or Treasury securities. There are ones that are securities. There are ones that are rated AAA. The government investments you'd have to ascribe, you know, close to zero probability of loss due to default. The AAA ones you ascribe a slightly higher risk than you'd have on this.

MR. LAWRENCE: Could you go to Exhibit 99. We're

kind of going in reverse order of what Mr. Tambe discussed. This is the email that Mr. Tambe, email chain that Mr. Tambe discussed between you and Kim Herman where Mr. Herman expressed that he was not--it would be a cold day in hell--the cold day in hell email.

Can you describe the context of the--out of which this email chain came?

MR. SHAPIRO: Can I take a minute just to review?

MR. LAWRENCE: Yeah, absolutely. Absolutely.

MR. SHAPIRO: Yeah, context clearly was a settlement discussion that was going on with Lehman estate staff.

MR. LAWRENCE: And what was--in terms of the context that you were discussing, what was the issue that Lehman, the position Lehman was taking that led to Mr. Herman's email?

MR. SHAPIRO: There were a number of things discussed on this call. It's already-- one of the items, I think which is submitted in evidence, was my notes from this call. But the-- one of the--this is where the issue of Lehman looking for this unheard of agency curve idea was discussed--that they were coming up with a very novel and untried way of saying you could--if you did agencies you could maybe get to a higher number.

MR. LAWRENCE: And was Lehman taking the position it was owed money on this call, correct?

MR. SHAPIRO: I'd have to look back. I don't-- it

sounds from Mr. Herman’s email, like they said they might get to that, but the discussion back and forth was about what spread. I, you know, I didn't take it seriously that anybody was thinking they would be owed money, that they would, you know, clearly if you’re looking to settle for a smaller claim it’s possible. That's their job. They're trying to minimize the claim.

MR. LAWRENCE: Okay, I'm going to show you what has been marked as debtor’s Exhibit 31 which Mr. Tambe asked you about, correct?

MR. SHAPIRO: Yes.

MR. LAWRENCE: And there is a reference that he brought to your attention to about ah uncollateralized GIC at about 5.25 percent. Do you remember that?

MR. SHAPIRO: Yes.

MR. LAWRENCE: Could you explain what the difference is in the risk profile between an uncollateralized GIC and the risk profile of the RFA?

MR. SHAPIRO: Yeah. The difference on this is huge. You're facing here ING, a European diversified financial organization that was obviously suspected of potentially having some issues, even though the rating agencies had still kept it at that point at a AA rating and you’d be facing them her for how many years does it say in the--? It’s cut off on the right. I believe this was for a long-term agreement so in this

case TSA would be facing, you know, a European financial institution in the midst of the worst financial crisis in modern times and taking risk as to all of their principle for a long period of time.

MR. LAWRENCE: And you were asked about the LIBOR minus 150 and how that would relate to what the current replacement RFA would be. What would you have to take into account that wouldn't be reflected in a pre-Lehman bankruptcy trade to try to replicate an agreement in the post-Lehman world?

MR. SHAPIRO: On--if I can ask you to clarify just on that issue of the 150-ish spread.

MR. LAWRENCE: Right, because that's--I think Mr. Tambe asked. He said look, let's say there was a trade occurring pre-Lehman at L minus 150, how would you go about getting it to a post-Lehman world?

MR. SHAPIRO: Right and--

MR. TAMBE: That wasn't my question so it misstates the question in his prior testimony, but he can ask me questions.

THE COURT: Okay. We'll leave open the question of whether it accurately reflects the prior testimony, but go ahead.

MR. TAMBE: You can answer the question.

MR. SHAPIRO: If the world were a LIBOR minus 150

world pre-Lehman, you know, when as to look at Mr. Singer’s email from December 9 I would assume that a current FPA would be priced well below LIBOR as the last trades were occurring at L 150-ish. Post-Lehman, and it wasn't just Lehman, this was a massive credit crisis. You know, Merrill was supposed to go down, AIG, Fannie, Freddie all of the credit spreads had widened enormously, as we’ve discussed. So, if it was LIBOR minus 150-ish pre it's going to be much wider post.

MR. LAWRENCE: Now if you recall Mr. Tambe showed you a loss calculation that you did for New York subsequent to the loss calculation you did for Washington. Can you first of all tell us in terms of the methodologies that you utilized, the basic structure in terms of doing loss calculation, are there differences between the two?

MR. SHAPIRO: The approach is basically the same.

MR. LAWRENCE: And the approach being looking at spreads--

MR. SHAPIRO: Look at where interest rates are and where spreads are and how do you quantify both of those. Where are interest rates on the date in question and where are--where is-- what's happened with the spread as best we can measure it given the limitation on the lack of live trading in this market.

MR. LAWRENCE: And Mr. Tambe points out that in the New York memo you wrote about the market quotation process.

Remember that?

MR. SHAPIRO: Yes.

MR. LAWRENCE: You didn't do that for Washington, correct?

MR. SHAPIRO: Yes.

MR. LAWRENCE: And can you explain why?

MR. SHAPIRO: Yes. Because the--I believe--it was a specific request from New York that we put that in the memo.

MR. LAWRENCE: You didn't--

MR. SHAPIRO: Our record-keeping in both cases was the same. There was no separate record that you can see, but we just put it in the memo the firms that we had telephoned.

THE COURT: Hold on. Hold on. So, in the New York case when somebody wrote that October 19th memo, you and Mr. Vergara--

MR. SHAPIRO: Yes.

THE COURT: Okay. You just went from memory.

MR. SHAPIRO: No, we know those. We're talking to these people every day. You know, we know what that list consists of. This is what we do and we're doing transactions all day long, your Honor.

THE COURT: So, in this memo to New York you say on September 11th SFG, Swap Financial Group, on behalf of TSFC distributed a term sheet, execution copies of the RFAs and credit and financial information to 14 dealers. So that's not

phone calls.

MR. SHAPIRO: No, that was different. You're correct.

THE COURT: Okay. So that's what you--

MR. SHAPIRO: I should turn to the exhibit, your Honor.

THE COURT: No, so that's what you did for them and then you say through October 16th the following responses were received, pass, pass, pass, pass, pass.

MR. SHAPIRO: Correct.

THE COURT: So how did those responses come back to you?

MR. SHAPIRO: Telephone.

THE COURT: Telephone.

MR. SHAPIRO: Yeah. We may have had an email or two on email response, but almost all are telephone.

THE COURT: Okay, thank you.

MR. LAWRENCE: And the responses that you testified to with respect to the Washington TSA are favored placement were communicated to you how?

MR. SHAPIRO: On the Washington?

MR. LAWRENCE: Yes.

MR. SHAPIRO: By telephone.

MR. LAWRENCE: Now, Mr. Gruer, who is the plaintiff's--I'm sorry, Lehman's expert, in his report

indicated that there was an inactive market for reserve fund agreements in March of 2009. Can you tell me whether or not you agree with that conclusion?

MR. SHAPIRO: Yes.

MR. LAWRENCE: And can you tell me whether or not that conclusion--how that conclusion relates to your experience in terms of trying to obtain quotations, market quotations?

MR. SHAPIRO: His conclusion, the same as any reputable participant in the market, was the same. There was no market for these agreements.

MR. LAWRENCE: Now, one of the exhibits that you were shown was a quote or an indication from Wachovia. Do you remember that?

MR. SHAPIRO: Yes.

MR. LAWRENCE: And could you explain whether that--could you explain what are the issues in your mind with that quote?

MR. SHAPIRO: There--can I turn to it? What's the exhibit number?

THE COURT: You're talking about debtor's 101?

MR. LAWRENCE: Let me just make sure that's the right one.

MR. SHAPIRO: The one with the Casey Rogers quote?

MR. TAMBE: It's 44, your Honor.

MR. LAWRENCE: 44, thank you.

THE COURT: 44?

MR. SHAPIRO: Yeah, you look at this and you could say at this time Lehman was trying to get somebody to provide them with a quotation because you see that from the email. You know, we know from our conversations with them that this was the only one that they succeeded in getting even an indicative on and, you know, he’s bugging them for your indicative level. It’s purely an indicative on this one and he attaches it saying that this is our indicative. Based upon looking at it we’re making some assumptions that we have to correct and the like. And then in their--in the term sheet format, which is found on I guess it's page 4, they stick a series of notes at the bottom making it pretty clear that they didn't go through their credit process, it's not an actionable quote in any manner. You know, if it were it’s expired, all sorts of caveated wording like that. You know, that’s another point there and then finally the upfront payment amount itself, just simply doing quick shorthand, raises real questions.

MR. LAWRENCE: So, what is the difference between this indicative quote, I think you described it, and what a true market quotation would look like?

MR. SHAPIRO: A true market quotation would first of all be from a firm that says I'm in this market, I provide this product. It wouldn't be conjecture from someone who would say if somebody else were doing it in the market and the market

world were open, here's what it would be. You need to have somebody who is a leading dealer in the relevant market, that is who can make that statement, you know, and say that this is a bona fide good quotation. So, that's, you know, the standard that we apply. We don't want something which is someone's estimation based upon a market they're not in.

MR. LAWRENCE: Now, I'm not going to suggest they didn't because Lehman didn't pass this on to TSA, but if this had been passed on to TSA could TSA call up Wachovia and say let's do it?

MR. TAMBE: Objection, calls for speculation. No personal knowledge either.

THE COURT: Sustained.

MR. LAWRENCE: All right. Based on what's in the quote was this a quote that TSA could have required Wachovia to act upon?

MR. TAMBE: Again, speculative.

MR. LAWRENCE: I think that's what in the--

THE COURT: That one's overruled. You can answer that one.

MR. SHAPIRO: No. He says this is not quote you can you can use for acting.

THE COURT: Where does it say that?

MR. SHAPIRO: It says at the bottom. He says, you know, if--please note the quote was not entered into. If we

made an offer to enter into it that's expired and is null and void. It may be subject to credit approval, should not be construed as a commitment.

THE COURT: Okay. So that doesn't say what you just said it said.

MR. SHAPIRO: Well, he's saying hasn't gotten any of those approvals. He's saying if there was any such offer it's expired so you couldn't enter into it.

THE COURT: So you don't--so based on this you don't know whether they made an offer or not.

MR. SHAPIRO: I know that--

THE COURT: It doesn't say this is not--no offer was made. It says the quote transaction was not entered into. If Wachovia made an offer, such offer has expired--if, right?

MR. SHAPIRO: Your Honor, if there was like a verbal offer that's not recorded anywhere from the bank.

THE COURT: I'm just trying to understand--

MR. LAWRENCE: Can you explain to the Court why you believe this is not an offer or that there was no offer associated with it?

THE COURT: I'm not going to allow that question. I withdraw my own question.

MR. LAWRENCE: Given your experience in dealing with dealers and obtaining indicative and market quotations, would you--what is your understanding of whether this itself is an

actionable quote?

MR. TAMBE: Objection, lack of foundation, speculation. This witness' testimony is when he calls dealers they hang up on him so I don't think he has any basis.

THE COURT: Okay. I think we've run to ground on this exhibit.

MR. LAWRENCE: Let's go to Exhibit 48. Now Exhibit 48 is your review of the first James Vergara loss calculation memo, correct?

MR. SHAPIRO: Yes, first draft.

MR. LAWRENCE: First draft. And it took you until April 20th to provide your response, correct?

MR. SHAPIRO: Right. April 19 I think it is.

MR. LAWRENCE: Okay.

MR. SHAPIRO: Yeah.

MR. LAWRENCE: And one of the things that you were responding to was his use of a LIBOR minus 150. Do you see that?

MR. TAMBE: Objection, leading, your Honor.

MR. LAWRENCE: I'm just pointing him to the place in the document.

THE COURT: Okay, keep going.

MR. SHAPIRO: Yes.

MR. LAWRENCE: Okay. And what was your response to Mr. Vergara's use of the LIBOR minus 150?

MR. SHAPIRO: My response, as I’ve mentioned before, was back this up. Where do you get this number from? We need to be rigorous here.

MR. LAWRENCE: And then subsequently he provided a second loss calculation using a three percent number for the credit spread, correct?

MR. SHAPIRO: Yeah, he put a cei--he derived the bond spread and then put a ceiling at three percent on it.

MR. LAWRENCE: And what was your concern about doing that?

MR. SHAPIRO: My only concern was what's the basis for it? We need to have a basis. We need to have a reason.

MR. LAWRENCE: So, what is--why did--so what is the basis for moving from three to 4.29 as you did?

MR. SHAPIRO: The 4.29 number was an observable metric from the market.

MR. LAWRENCE: And again, what is--what are the observations that you’re looking at to get to the 4.29?

MR. SHAPIRO: The spread between the bond and the single A revenue bond index found on Bloomberg.

MR. LAWRENCE: And that’s the same index that Mr. Vergara looked at, but he reduced that down to three?

MR. SHAPIRO: Yeah. That was one--that was the same index used that he input that three ceiling on.

MR. LAWRENCE: Now, there was some discussion with

Mr. Tambe about the fact that in your rebuttal report you--

THE COURT: Can I just interrupt you?

MR. LAWRENCE: Sure, absolutely.

THE COURT: So just on this issue of the credit charge, in the New York document that we've had a lot of conversations about--

MR. SHAPIRO: Judge, can I just--

THE COURT: Yes, turn to it.

MR. SHAPIRO: Which exhibit is it?

THE COURT: Exhibit 71, right?

MR. LAWRENCE: And it's at the end of 71.

THE COURT: Yeah, at the end of 71.

MR. SHAPIRO: Great. Thank you.

THE COURT: So in the table, which is on page five, for that calculation by your firm the credit spread is a 2.427. Do you see that? It's in the box at the bottom of page five.

MR. SHAPIRO: I'm seeing a credit spread of 2.166. Am I looking in a different place?

THE COURT: I'm looking at the October 19th 2009--

MR. SHAPIRO: Oh, I'm looking at the September 17 in my book.

MR. TAMBE: It's Exhibit 71, your Honor.

THE COURT: Exhibit 71, right.

MR. TAMBE: I think you're looking at 150.

THE COURT: I'm sorry, did I--?

MR. TAMBE: Yeah, I think you’re looking at 150 which is why we stuck with 71. That's what he had been shown before.

THE COURT: Are those two different documents?

MR. TAMBE: Yeah.

THE COURT: I'm sorry, I don’t mean to be confusing everybody.

MR. TAMBE: That’s why we didn’t use 150 in the examination.

THE COURT: Okay, so 71?

MR. TAMBE: Yeah.

THE COURT: If you would just give me a moment. Okay, thank you. So, in 71 in the table, which is attached to the proof of claim, the credit spread is 2.166, right?

MR. SHAPIRO: Correct.

THE COURT: So could you just rationalize that number to Mr. Vergara’s--and also there’s an indication--I'm sorry. Could you just explain to me why that’s about half of what you used in the Washington TSA calculation?

MR. SHAPIRO: Yes, if I can refer you back one page.

THE COURT: Sure.

MR. SHAPIRO: On the--under the caption.

THE COURT: Charges?

MR. SHAPIRO: Yeah.

THE COURT: Yup.

MR. SHAPIRO: Second paragraph you'll see there is a

sentence four lines down that says the bonds are currently trading at a yield of 7.136.

THE COURT: Yes. Right.

MR. SHAPIRO: That's compared to Washington's at the point in time of valuation that we're trading at 10.

THE COURT: Okay.

MR. SHAPIRO: So that's going to be the biggest determinant. Of course, the underlying municipal bond index--

THE COURT: Right.

MR. SHAPIRO: --will also have moved--

THE COURT: So the higher the yield the greater the risk, the more you have to include a charge under your methodology.

MR. SHAPIRO: That's what the market is saying, yes.

THE COURT: Okay. Now here the last sentence says, "For the purpose of our analysis we have assumed a value for the risk of the municipal bond credit of 2.166 or 50 points greater than the current spread." So does the number that you've included in the calculation for Washington against Lehman, does that include that cushion or is it an actual we looked at Bloomberg and we took the number?

MR. SHAPIRO: Nothing additional was added in the Washington case so it wasn't--there was no 50 basis point addition that we put on.

THE COURT: Okay, thank you.

MR. LAWRENCE: And obviously if you had added 50 points to the spread on the Washington TSA bonds that would have increased the credit charge.

MR. SHAPIRO: Yes.

CLERK: It would increase the?

MR. LAWRENCE: Credit charge. Now there was some discussion about the reassessment that you did in the rebuttal report regarding the CP credit spread. I'm sorry, the CP spread, correct?

MR. SHAPIRO: Correct.

MR. LAWRENCE: First of all, let me ask you did you change your loss calculation based on the correction of what you perceived as an error?

MR. SHAPIRO: No.

MR. LAWRENCE: And why didn’t you do that?

MR. SHAPIRO: I--as I mentioned, I felt that all of these elements in toto represent a gross spread. We look, you know, when we--when we look at a transaction that’s originally put on by a dealer it’s got a gross spread in it. Lehman’s in ’02 was LIBOR minus 105. The components of that, even when you talk to the traders, have some degree of fungibility or, you know, there-in other words, you know, one pocket will have some effects that may be absorbed by another pocket. So, we felt like, you know, we didn't need to change the valuation based upon that.

I'd add one additional thing and that is the process of changing a claim is a little bit difficult legally from what I understand.

MR. LAWRENCE: Are you comfortable as you sit here today with the total spread analysis in your loss calculation?

MR. SHAPIRO: I am.

MR. LAWRENCE: Now there was some discussion with Mr. Tambe about the reason why you had to do a change and I would--there was a discussion between the H15 screenshot and the screenshot that you utilized in your rebuttal report. Could you explain the differences between those two Bloomberg screens?

MR. SHAPIRO: Yeah. This is the critical issue in terms of upon further analysis when we go back and re-examine and re-examining because we're, you know, there--this is a long process with lots of questions and many steps along the way--settlement discussions, mediation all of those kinds of things. So, we look back and say, is there any error, is there any way we could look at this differently. When I looked at this, again subsequent to my first deposition but before my third deposition having sat through about 20 hours of depositions on his case, I looked back and it was clear that the H15 spread we looked at was the spot spread. That is, where CP, as defined by the Federal Reserve's H15 publication as it's called, which is not quite comparable to this CP. It's a little cheaper CP

by the way. In other words it would be a little higher in yield, but that spread would be on that one day, not where it would be if we're hedging it out for the remaining 23 years of the contract.

MR. LAWRENCE: And so the other screen looks at what information?

MR. SHAPIRO: There is a way to hedge floating LIBOR versus floating CP. You know, that is these are floating instruments.

MR. TAMBE: I have an objection to the extent this goes beyond what he's put in his rebuttal report. Now he's just coming up with new theories, your Honor.

MR. LAWRENCE: I think he's explaining what--

THE COURT: I think he's explaining the difference between these screens which I think you opened the door to, Mr. Tambe.

MR. SHAPIRO: And this--the other screen is the screen that says where can a dealer go into the market and hedge the spread the three-month LIBOR and H15 CP. And that will tell you for how many years at how much, you know, what you will be able to pay or receive and what it shows here is that the dealer would be able to receive the numbers that we came up with which works out at 23 years to roughly three basis points.

MR. LAWRENCE: And why is that screen that talks

about the swap hedges information more appropriate to use than the H15 screen?

MR. SHAPIRO: It states what the value is for that 23 year length of time and where a replacement dealer, if one did exist, would commit to locking in. They wouldn't commit to locking in based upon rates on one day, the so-called spot rate. They would look at where they could get rid of the risk because they don’t want to own the risk. In fact, bank trading desks aren't supposed to own risk like that. They’re supposed to lock it in.

MR. LAWRENCE: So the H15, can you tell me whether or not that’s a short-term rate?

MR. SHAPIRO: H15 is a short-term rate based upon CP that is either A1 or P1. It has to have at least one of those ratings. Washington’s contract requires them to not only have both, but actually A1 plus, a sort of super high-quality rate. So it would be even lower technically.

MR. LAWRENCE: And can you tell me whether or not the hedge spread rate does that show us what a dealer would have been able to hedge at on March 25th 2009?

MR. TAMBE: Objection, leading, your Honor,

CLERK: On March?

MR. LAWRENCE: Can you tell us what that tells us about whether or not--what level a dealer could hedge at on March 25th 2009?

MR. SHAPIRO: It tells us that a dealer could hedge at that level, assuming there was that size available in the market. You know, the screens are not perfect. Sometimes, if you try to do too much size, you'll push the number against your interest.

MR. LAWRENCE: There was--there's been a good amount of discussion about how you apply the charges and the spread that that results in. Is there--in terms of the valuation that you get at the end of the day, does it matter whether you're taking that against the fixed rate or LIBOR in terms of what the end result is?

MR. SHAPIRO: Could you explain your question again? I'm not quite catching.

MR. LAWRENCE: I'm just trying to--you express--well, let me ask you this differently. You expressed that the equivalent replacement contract, hypothetical replacement--

MR. SHAPIRO: I think I understand.

MR. LAWRENCE: Okay.

MR. SHAPIRO: And that is, when a trader discusses an instrument like this, they will say it's--as Nat expressed it, who sat on a trading desk for more than 20 years, it's LIBOR minus 150-ish. Now, he knew at the moment he said that that LIBOR was down in the, you know, low double digits, that, in other words, LIBOR minus 150 as a floating rate would produce a negative number.

Nat's not a stupid guy. When a trader is saying, "LIBOR minus 150," he's saying that's where the fixed rate, looking at a LIBOR swap, would be. And you subtract the 150 off the fixed rate.

MR. TAMBE: I ask for that entire answer to be stricken. It sounds like it's not his personal knowledge. He's just speculating as to what Nat Singer knew.

THE COURT: Sustained.

MR. LAWRENCE: Can you explain, in--when you submitted the report as your expert opinion, what--how you applied the spread?

MR. SHAPIRO: Yeah. The spread would come off the fixed rate. Any trader would express it that way, in my personal experience.

MR. LAWRENCE: And if you do--if you subtract 3.874 from 4.484, what do you get?

MR. SHAPIRO: By simple subtraction, I think we--I stated we get 61 basis points, 0.61 percent.

MR. LAWRENCE: So, what is the contract--the replacement hypothetical contract that you're trying to replicate in the market, in the inactive market? What would that contract offer? What fixed rate would that offer?

MR. SHAPIRO: It would offer, you know, a fixed rate along that--along those lines for the remaining life of the contract.

MR. LAWRENCE: Along the lines of 0.61 percent?

MR. SHAPIRO: Yes.

MR. LAWRENCE: Okay. And so you're comparing the value of that contract with the value of the RFA of 4.484 percent?

MR. SHAPIRO: Correct.

MR. LAWRENCE: And then you discount that to present value?

MR. SHAPIRO: Correct.

MR. LAWRENCE: And then that's how you come up with your 38 million?

MR. SHAPIRO: 8 million, yeah.

MR. TAMBE: Your Honor, I'd ask for all of that testimony to be stricken. We have no (indiscernible) papers, nothing to support the testimony that witness just gave. It's a new theory.

MR. LAWRENCE: Oh, okay. I can--I'd be happy to address it for the record, because three time at least--two or three times in his deposition, he explained the 0.61, starting in his first deposition and in his last deposition. So, the idea that this is a new theory is simply not in the record.

THE COURT: We're going to keep going, and I'll--when I review the prior depositions, I'll make a determination as to whether or not this answer is (indiscernible), okay?

MR. LAWRENCE: Sure. And so, just to understand the

process--

THE COURT: Right.

MR. LAWRENCE: We will be entitled then to submit to the Court those sections of the deposition?

THE COURT: Sure.

MR. LAWRENCE: Okay. Great. Thank you.

THE COURT: Yes.

MR. LAWRENCE: With that understanding that we would be happy to submit those provisions of the deposition to the Court--

THE COURT: Okay.

MR. LAWRENCE: I have nothing further. (indiscernible)

MR. TAMBE: Just a couple of questions, your Honor, just about principal risk. Under the RFA, if Lehman delivered commercial paper, and the commercial paper supplier defaulted, that's the TSA's risk, correct?

MR. SHAPIRO: If Lehman delivered the commercial paper, and, during that brief window--

MR. TAMBE: Six months.

MR. SHAPIRO: Yeah, that six-month period, yes, that would be their risk.

MR. TAMBE: So, for example, in June of 2008, if Lehman delivered commercial paper, someone could have defaulted in the fourth quarter of 2008 and that would have been TSA's

loss, right?

MR. SHAPIRO: That's correct.

MR. TAMBE: Great. And the type of paper Lehman could have delivered in June of 2008 could have been commercial paper from ING, correct?

MR. SHAPIRO: I'd have to look at what ING's ratings--if they--

MR. TAMBE: Right, so--

MR. SHAPIRO: That highest short-term rating, and were not on Credit Watch.

MR. TAMBE: Right.

MR. SHAPIRO: Yeah.

MR. TAMBE: So, if they had that rating, you could have delivered ING commercial paper, and ING could have defaulted, and TSA would be stock with the principal loss. Okay.

MR. SHAPIRO: Yeah. It would be, you know, six-month risk to ING. That's correct.

MR. TAMBE: Just want to understand the discussion about the different Bloomberg screens. Right? The screen that Mr. Vergara looked at and the one he used, which got the 66.6 basis point spread, that's a screen that told you the value of the securities to be delivered, the commercial paper, correct?

MR. SHAPIRO: No. It compared the rates between--let's--show me the exhibit so I'm not answering based upon

speculating on what you mean.

MR. TAMBE: Okay. Well, let's go back to your Exhibit W, page two. Now, the top, let's look at your methodology, the use of the LIBOR plus spread.

MR. SHAPIRO: Right.

MR. TAMBE: And what you say in your methodology there is what you're doing is you're looking at the sixth leg, and the floating leg is the value of the securities which are to be delivered. Do you see that?

MR. SHAPIRO: Yeah.

MR. TAMBE: And that's what the LIBOR plus 66.6 entry was about. It's the value of the securities to be delivered, commercial paper. Correct?

MR. SHAPIRO: Technically it's the rates. It's one rate versus the other, yeah.

MR. TAMBE: It's the commercial--it's the value of the commercial--that--these are your words. So, it's the value of the securities which are going to be delivered, right?

MR. SHAPIRO: If I were wordsmith-ing it a little more, I would say it's the rate, not the value. The value could be the price, and a CP, if it were downgraded, would fall in price from part to lower.

MR. TAMBE: Well, you wordsmith-ed this document a lot. We saw all the drafts of this document.

MR. SHAPIRO: Yeah.

MR. TAMBE: You wordsmith-ed this over and over again, right?

MR. SHAPIRO: Well, I could still continue wordsmith-ing.

MR. TAMBE: I'm sure you could. Nowhere in this discussion of commercial paper spreads do you say what you're valuing is the hedging transactions that the trader's going to enter into. Correct? That's not said in here.

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. And that's what your rebuttal report talks about, is the value of the hedging transaction and the screens that support the hedging transaction, not the value of the securities which are to be delivered in this deal. Correct?

MR. TAMBE: Not the spread between the two rates on that date.

MR. TAMBE: Okay. Thank you.

THE COURT: That's it? Okay.

MR. LAWRENCE: I think we're done.

THE COURT: All right. Mr. Shapiro, thank you very much. Thank you for your patience. You're excused.

MR. SHAPIRO: Thank you, your Honor.

THE COURT: Okay.

MR. SHAPIRO: And my apologies again for when I--

THE COURT: No apologies necessary.

MR. SHAPIRO: Okay.

THE COURT: We're all just trying to do our job.

MR. SHAPIRO: Okay.

THE COURT: Okay? Is this where you want to take a lunch break? Do you want to start with Lehman's case?

MR. TAMBE: I'm not sure if they're done with their case.

MR. LAWRENCE: We are done.

MR. TAMBE: Okay.

MR. LAWRENCE: Yeah, I mean, you've had both witnesses, so they know.

MR. TAMBE: Well, in that case, your Honor, we're going to move for judgment in our favor. Under rules--Bankruptcy Rule 19-14 and Bankruptcy Rule 70-52, they have failed on every element of their burden of proof, your Honor.

THE COURT: (indiscernible)

MR. TAMBE: This record does not support any claim in any amount.

THE COURT: Can you elaborate a little more?

MR. TAMBE: Sure. Do we have the opening slides?

THE COURT: You want me to look at your opening book?

MR. TAMBE: The opening--yeah. I'll just use that for organization.

THE COURT: Okay.

MR. TAMBE: And, if you go to the burden of proof, I

think it's the third slide or fourth slide. The next slide. You've got a set of valuation reports from Curry and Hasterok that we believe, your Honor, can't be admitted. And the record is now closed on their submission. It's not reliable, departs from market practice, departs from their own experience. So, you should disregard those. In addition, it violates Section 562 to the extent that looking at facts beyond March 2009 to support an opinion given as of March 25th, 2009.

We just got through the examination of Mr. Shapiro. I don't believe even he would say that the document that's been filed as a claim with this Court is one that he stands behind right now. He thinks it's all fungible at this point. He's changed his methodology. He's given us several different answers of what his approach is.

We've had absolutely no basis offered by him as to why market quotations were not done. There's no--not a scrap of evidence other than his words as to what was done about the market quotation process. And the contract's pretty clear: you got to go through market quotation if you want to get the loss. They didn't do it.

We don't think the results are reasonable. I think you asked some questions about the present value of the fixed leg, and is the claim amount larger than the present value of the fixed leg. It is, your Honor. If you discount that fixed leg back, just by LIBOR, not their cost of credit, they've come up

with a number where you're sticking the money in the mattress and then you're adding more money to it.

They're actually losing money by doing nothing. That's their view of loss on this case. I don't think that's reasonable. Manifest error? That's a plain error.

We think we've made the case, based on documents and testimony, that this was not a process that was run in good faith, nor was it run reasonably. That's what the evidence shows, your Honor. I think the record from their side is closed. We don't think they have made a prima facie case for any claim in any amount.

THE COURT: All right. Mr. Lawrence?

MR. LAWRENCE: Not surprisingly, we disagree. So, first of all, we believe that we did abide by the RFA, which requires the parties to calculate TSA, as the burden's party, total loss or gains in the process. We presented two different methodologies to do so, one that relies on the actual investment opportunities that were available to TSA to mirror the risks of the RFA, and based on actual, factual data between the date of fail delivery and the date of the rejection, what those returns were.

And the opinion, whether they disagree with it or not, that, over the next 23 years, even though it was above what in fact TSA was gaining over the last four years, that the average rate of return over the 23 years would probably mirror the

first four months. Fact-based, based on actual losses, which is the language of the RFA. They can criticize it that it's not based on the curve.

But let's talk about the curve. The curve--

THE COURT: Wait. But wait.

MR. LAWRENCE: Sure.

THE COURT: What you just said was more geared towards the Curry and Hasterok approach than the swap financial approach, correct?

MR. LAWRENCE: Right. But they explained why they rejected the curve in their (indiscernible). Okay.

THE COURT: Yes, they explained why they rejected the curve. Right.

MR. LAWRENCE: Yes, yes. So, I am talking about--

THE COURT: Okay.

MR. LAWRENCE: And I don't need to go into further--

THE COURT: Right. We're not having closing argument here.

MR. LAWRENCE: Okay.

THE COURT: We're just--I just want to give you an opportunity to respond--

MR. LAWRENCE: Sure.

THE COURT: To the motion for judgment.

MR. LAWRENCE: Sure. The Swap Financial Group went out and tried to do a hypothetical replacement approach. Let

me start with the market quotation piece.

THE COURT: But, bounded by--but, on--or informed by the RFA's definition of termination around--right?

MR. LAWRENCE: True. Yes. Yes.

THE COURT: To give Washington TSA the benefit of their bargain. That's what they should get, right? The benefit of their bargain.

MR. LAWRENCE: Exactly. And what he was trying to do was compare, okay, what is the benefit of the RFA with Lehman?

THE COURT: Right.

MR. LAWRENCE: And what would be the benefit of a replacement--hypothetical replacement contract?

THE COURT: Right.

MR. LAWRENCE: Because it was--everyone agrees that it was an inactive market for FPAs at that time.

THE COURT: Two different things. Those are apples and oranges. The benefit of--

MR. LAWRENCE: I'm just saying why he went to a hypothetical model.

THE COURT: Okay.

MR. LAWRENCE: So, you have--in his view, and whether or not--his view is that there's value in the RFA getting 4.84 percent. How does that compare to the value of a hypothetical replacement fixed-rate contract you could get as of March 2009? And he looks net present values, the differences in values, and

that is the loss of bargain or the loss of TSA.

THE COURT: Yeah.

MR. LAWRENCE: That is his methodology. And there is criticism by Mr. Gruer of his credit charge. But there's no criticism that the methodology of using deliverables, credit spreads, profit spreads is the way that a hypothetical dealer would in fact--

HE COURT: Right. But--okay. But then I have--but you're asking me to harmonize the views of Mr. Shapiro about his use of the broadly accepted methodology and, at the same time, accept as equally persuasive the methodology that Mr. Curry and Mr. Hasterok came up with, which snapshots interest rates during probably the worst four months in the country's financial history since 1929.

I don't know what happened. I don't know what the gyrations looked like in '87. I'd like to say I was too young, but I wasn't. But that's the snapshot. We did a lot on the snapshot issue. So, I've got to harmonize those two things. And you're skipping over the issue about the--obtaining the market quotes.

MR. LAWRENCE: First let me step back to the--

THE COURT: Okay.

MR. LAWRENCE: Snapshot question that you asked. A forward curve is a snapshot of the market on a single day. It's not based on a market over four months.

THE COURT: Yeah.

MR. LAWRENCE: Or four years. It's a single day. So--

THE COURT: Understood.

MR. LAWRENCE: In terms of snapshots--

THE COURT: Right.

MR. LAWRENCE: We have two snapshots, one a four-month actual and one a market expectation on one day.

THE COURT: Right.

MR. LAWRENCE: So, I wanted to make that point.

THE COURT: Understood.

MR. LAWRENCE: The market quotation process--and I understand there's been suggestion that Mr. Shapiro was not being honest in his testimony. But his testimony is what it is. His testimony is consistent with the testimony of Curry and Hasterok and Gruer in his expert report that there was no active market for RFAs. You couldn't go out and get one. It is consistent with Lehman's own experience trying to get quotes on actionable quotes. They had one.

THE COURT: But--right. But not a whole lot of people wanted to talk to Lehman during that period of time, though.

MR. LAWRENCE: No--well, whether or not they wanted, they had the right to go out and get quotes.

THE COURT: Sure.

MR. LAWRENCE: And they tried, and they couldn't get three quotes.

THE COURT: Okay. Well, I don't know what the evidence is on that.

MR. LAWRENCE: I'm just saying that--right.

THE COURT: All I know what the evidence is that has been placed on this record. So, let me just ask you one question.

MR. LAWRENCE: Sure.

THE COURT: And then I think we're going to move on. If I were to conclude that I will not credit Mr. Shapiro's testimony, okay?

MR. LAWRENCE: Sure.

THE COURT: If. I'm not saying that that's where I am. But if I were to conclude that I do not credit Mr. Shapiro's testimony that in fact there were market quotations sought, what happens?

MR. LAWRENCE: I believe, if anything, it's not material, because everyone has testified to date, and Mr. Gruer testified, as we heard, that there was no active market. So, it's--there's no evidence that could show, had TSA--and, again, I'm assuming you're throwing it out. There's no evidence that could show, had TSA gone and gotten market quotations, that they could have gotten real market quotations to support a claim. So, if you were to throw out, it would not be material.

We'd still end up going to a total loss scenario.

THE COURT: So, then I would be reading that language out of the agreement.

MR. LAWRENCE: No. I think what--and, again, I disagree with--

THE COURT: Okay.

MR. LAWRENCE: But, taking the premise of your question--

THE COURT: Right.

MR. LAWRENCE: I think that what you're suggesting is, okay, suppose there was a bridge.

THE COURT: Yes.

MR. LAWRENCE: And that there was not an effort to get a market quotation.

THE COURT: Exactly right. Correct.

MR. LAWRENCE: The next question would be whether or not that's a material breach of the agreement.

THE COURT: Well, I guess I want to avoid getting into an extended legal argument.

MR. LAWRENCE: No, I know, but--

THE COURT: Because that's what--we could do that for a long time.

MR. LAWRENCE: I appreciate that.

THE COURT: But what you're saying to me is Lehman doesn't automatically win. That's the bottom line.

MR. LAWRENCE: Absolutely.

THE COURT: That's the bottom line.

MR. LAWRENCE: Because there's plenty of evidence that there was no possibility of getting market quotations at that time.

THE COURT: Okay. All right. Okay. All right, thank you. I hear you. We're going to go on to Lehman's case. I'd like to hear what Mr. Gruer and--is it Babbel? Babel?

MR. LAWRENCE: Dr. Babbel, yes, your Honor.

THE COURT: Yeah, Dr. Babbel have to say. And so, the only question to answer right now is whether you want to start that now or whether you'd like to have the lunch break now.

MR. TAMBE: I believe Dr. Babbel will go for about an hour and 15 minutes.

THE COURT: Okay.

MR. TAMBE: Roughly. So--

THE COURT: So therefore?

MR. TAMBE: It may be best to break for lunch now.

THE COURT: Okay.

MR. TAMBE: Maybe 45 minutes, come back at one, and--

THE COURT: Okay. All right, 45-minute break.

MR. TAMBE: Thank you, your Honor.

THE COURT: Thank you very much.

All right. Thank you. Please have a seat. Mr.

Lawrence, Mr. Tambe, could I speak to you for one second before we start?

MR. TAMBE: Your Honor, the debtors call Professor David Babbel.

THE COURT: Okay. Thank you. Good afternoon, sir. Would you please stand?

DR. BABBEL: Yes.

THE COURT: Raise your right hand. Do you solemnly swear or affirm that all the testimony you are about to give before the Court shall be the truth, the whole truth, and nothing but the truth?

DR. BABBEL: Yes, I do.

THE COURT: Thank you. Please have a seat. Let us know if you'd like to take a break or if there's anything else you need to be comfortable.

MR. TAMBE: Dr. Babbel, for the record, would you introduce yourself to the Court, please?

DR. BABBEL: Pardon?

MR. TAMBE: Would you introduce yourself to the Court, please?

DR. BABBEL: Oh. My name is David Frederick Babbel, B-A-B-B-E-L.

THE COURT: Okay. Move that mic a little bit farther back from you, because we're getting a reverb.

DR. BABBEL: Okay.

THE COURT: Okay?

DR. BABBEL: Thank you.

MR. TAMBE: Dr. Babbel, if you could turn to the tab in your binder that's Debtors' Exhibit 13, it says Debtors 13?

DR. BABBEL: Yes.

MR. TAMBE: Sir, is that a copy of your CV?

DR. BABBEL: It is.

MR. TAMBE: And that document was attached to the expert report you filed in this case, correct?

DR. BABBEL: It was, yes.

MR. TAMBE: And it sets forth your academic appointments, your nonacademic appointments, your publications, your work experience, et cetera, correct?

DR. BABBEL: Yes, it does.

MR. TAMBE: Okay. If I could ask you, have you prepared a demonstrative set of exhibits to assist the Court with your testimony today?

DR. BABBEL: I did.

MR. TAMBE: Okay. I'd ask for the demonstrative (indiscernible). And, turning to page one of the demonstrative, could you describe for the Court just briefly your educational background and experience?

DR. BABBEL: Sure. I received an MBA and a PhD in finance from the University of Florida. I then did a post-doctoral at the University of California, Berkeley, in finance

theory. And then I was retained on their faculty. I was assistant professor of finance and international business.

I later did a post-doctoral fellowship at the Wharton School on risk and insurance economics. And then the Wharton School lured me away from Berkeley. And I've been there since as an associate and a full professor. Currently I'm a professor emeritus, although I still do doctoral classes occasionally or seminars.

MR. TAMBE: Could you just describe for the Court some of the courses that you have taught over the course of your academic career that are relevant to the opinions you're expressing here?

DR. BABBEL: Sure. The most relevant ones are the fixed income, which I taught at Berkeley and Wharton.

MR. TAMBE: Slide two?

DR. BABBEL: And advanced fixed income. I've also taught investments and securities markets for 30 years. I teach an advanced asset liability management class, and have for 15 years. I taught the only structured notes and asset-backed securities class at Berk--I'm sorry, at Wharton. And I've also taught advanced corporate finance.

MR. TAMBE: And, in those classes, do they--do you address the valuation of long-dated financial instruments?

DR. BABBEL: Absolutely.

MR. TAMBE: And do you teach your students how to

construct forward curves?

DR. BABBEL: I do.

MR. TAMBE: And do you teach your students how to construct forward curves to value financial instruments?

DR. BABBEL: Yes, I do.

MR. TAMBE: You have published in this area as well, have you not, sir?

DR. BABBEL: Yes, I have.

MR. TAMBE: Now, attached to your CV, which is Exhibit 13, there are several pages of articles that you've authored or coauthored. Is that right?

DR. BABBEL: That's correct.

MR. TAMBE: Okay. Are some of those articles particularly significant to the opinions you're expressing today?

DR. BABBEL: Yes.

MR. TAMBE: Okay. And did you set those out in your demonstrative slides?

DR. BABBEL: I did. I summarized--I selected 10 from my list of publications that all deal with interest rates, forward rates, valuation topics.

MR. TAMBE: Are the publications that appear in slides three and four--are those all publications that were published in peer-reviewed journals or publications?

DR. BABBEL: All of these studies here were peer-

reviewed.

MR. TAMBE: And, just for the record, what does it mean to be peer-reviewed?

DR. BABBEL: The editor of the publication selects people who are known experts in the field, and oftentimes it's blind, so I don't know who they are. And these experts then make suggestions or they reject the article.

MR. TAMBE: Okay. And I assume, if they'd rejected the article, it wouldn't show up on page three or four of your slide deck?

DR. BABBEL: That's right.

MR. TAMBE: One of the items on slide three, I believe, GOLDMAN SACHS INSURANCE PERSPECTIVES, is that a peer-reviewed journal?

DR. BABBEL: It was reviewed by the peers at Goldman Sachs, which was comprised of over 10 professors, top in the field, including some Nobel Laureates, yes.

MR. TAMBE: In addition to your publications, articles, have you also published textbooks?

DR. BABBEL: Yes, I have.

MR. TAMBE: And have you identified, in your demonstratives, the textbooks that you have authored or coauthored that are of particular significance here?

DR. BABBEL: Yes, I selected two of them that I thought were germane to the issues in this case.

MR. TAMBE: Okay. And, looking at demonstrative five, have you set out there the chapters of that particular publication that you believe are germane to this case?

DR. BABBEL: That's what I did, yes.

MR. TAMBE: And, just for the record, the book that you have identified is THE VALUATION OF INTEREST-SENSITIVE FINANCIAL INSTRUMENTS. Is that right?

DR. BABBEL: That's correct.

MR. TAMBE: Now, who did you prepare that for or with?

DR. BABBEL: I prepared it for the Society of Actuaries, for their highest-level examinations, so that actuaries would be conversant with modern finance practices and theories, for valuation of their interest-sensitive instruments, traded and non-tMR. TAMBE: And, turning to slide six, that's another book of yours that you've identified in your demonstratives, correct?

DR. BABBEL: That's correct.

MR. TAMBE: And what is the connection or relevance of this publication to the opinions you're expressing today?

DR. BABBEL: Like the previous one, I spend quite a bit of time on valuation of financial instruments. And I lay the foundation by talking about the term structure of spot-rates of interest, forward rates of interest, and then how to use them, how to derive them.

MR. TAMBE: And is that set out in chapter five of this book, "Financial Markets, Instruments, and Institutions"?

DR. BABBEL: Yes, it is.

MR. TAMBE: Turning from your academic credentials to your nonacademic appointments, would you briefly discuss with the Court some of your nonacademic appointments?

DR. BABBEL: Sure. My first one was with Johnson & Higgins, brokers, the first one that's germane, where I did studies on the term structure of interest rate volatility. That study was published in a book, and it was that study which got me my next appointment at Goldman Sachs, because it was advanced work.

MR. TAMBE: And what was your position at Goldman Sachs?

DR. BABBEL: I started off as a vice-president in their financial strategies and fixed income division. And then I moved--then I set up the (indiscernible) insurance group. And I stayed for about six years. Full time was just the very beginning, year and a half. And then the rest I was a senior advisor to Goldman Sachs and worked in their mortgage division, financial strategies, asset management, and, of course, insurance and pensions.

MR. TAMBE: And did any of those appointments at Goldman Sachs require you to value long-dated instruments?

DR. BABBEL: Oh, yes.

MR. TAMBE: Did they require you to work with forward rates of interest?

DR. BABBEL: Yes, they did.

MR. TAMBE: And did they require you to trade infrequently traded or non-traded instruments?

DR. BABBEL: They didn't require me to trade. I would work with traders and advise them on their models. And I developed some valuation models there.

The next appointment was at the World Bank, as a senior financial economist in the financial sector development department, where I worked on how to price loan guarantees. And I also worked on risky debt.

Then, the next appointment was not full-time, but I was a consultant at Winklevoss, which is one of the largest pension actuarial software firms. I developed their software, the valuation portion of it.

MR. TAMBE: And, again, you were valuing long-dated assets and liabilities?

DR. BABBEL: The longest-dated, 40 years and 50 years.

MR. TAMBE: Are these interest rate sensitive instruments that you're valuing?

DR. BABBEL: Some of them are. For the Winklevoss pension actuarial department, most of them were fixed income, fixed interest rates. The next appointment, at GE Capital,

most of it was floating rate. And I developed their software for valuation of instruments with guarantees.

Then I was a consultant at NERA, part-time, National Economic Research Associates, here in New York. And now I'm with Charles River Associates. I do--but I still have my office at Wharton, and it's--I work out of Philadelphia.

MR. TAMBE: Okay. In terms of some of the fixed income valuation work you've done, away from academia and away from the institutions we just talked about, could you briefly describe for the Court some of the engagements you've had in that area?

DR. BABBEL: Yes. I have some--I created a slide for that. It's slide number eight. So, I worked at Goldman Sachs and the World Bank, as we already discussed.

MR. TAMBE: Mm hmm.

DR. BABBEL: But then I list, in the next five bullet points, eight government departments or agencies where I've been solicited or asked to help them with valuation issues in various things. For instance, inflation index bonds, I worked with the Federal Reserve and the Treasury. Pension Benefit Guarantee Corporation, I helped them with their discount rate, what's appropriate and what isn't.

Federal Trade Commission, with commodities futures trade, and FDI, valuing foreign currency options. Department of Justice and Resolution Trust Corporation, when the savings and

loan industry went bust, I helped value the assets for distribution purposes.

MR. TAMBE: And have you used your experience, both in academia and outside of academia, in the course of your career, to help inform the opinions in this case?

DR. BABBEL: Yes, I have.

MR. TAMBE: And just briefly, the scope of the opinions that you're providing, could you describe those for the Court?

DR. BABBEL: Sure. I have a summary. It's a very short summary.

MR. TAMBE: This is slide nine?

DR. BABBEL: Slide nine is the scope of my opinion. I was engaged to assess the--some of the aspects of the opinions of Mr. Curry and Mr. Hasterok, not all of them. I was engaged to explain the use of forward curves to the Court and how they're used in valuing financial instruments. And I was not asked, nor did I perform, any specific valuation of the reserve fund agreement between Lehman and Washington TSA. As I understood, there was another person engaged for that purpose.

MR. TAMBE: Your Honor, we would tender Dr. Babbel as an expert on the topics that he has identified and the topics that are the subject of his expert opinion.

THE COURT: Okay. Mr. Lawrence?

MR. LAWRENCE: No objection.

THE COURT: All right. Very good.

MR. TAMBE: So, moving to a summary of your opinions, if you could briefly summarize them, and then we'll discuss them in turn?

DR. BABBEL: Sure. The first opinion deals with the fundamental importance of using what's called the term structure of interest rates, which I'll elaborate on a little bit, to value cash flows that are occurring at different times in the future. And it's required, to do proper valuation, to use the term structure of interest in valuing future cash flows or deliveries, or either explicitly or implicitly.

The second opinion is that it is the market standard to value forward delivery contracts such as the RFA, which is under consideration here--the market standard is to use forward rates as of the given termination rate. The forward interest rates may be described graphically, in a curve, or tabularly. And they're determined from actual market transactions. They're not theoretical. They're definitional. It's simple math. If you know spot rates, you know forward rates. If you know forward rates, you know spot rates.

The next opinion is that Mr. Curry and Hasterok, although they have used forward rates throughout their careers, they don't in this particular case. They used 65 hundredths of one percent to compute projected cash flows on the RFA as of March 25th, 2009. And, by using that rate, it overcompensates

Washington TSA.

Finally, they used the same fixed rate of 65 hundredths of one percent for the discount rate for all of these cash flows, or for deliveries of securities that go out many years into the future. And that's--that is incorrectly inflating the value, the present value, of those future cash flows, to use such a low discount rate, when even the Treasury has to pay much higher rates for theirs.

. TAMBE: Are you opinions discussed and set forth in the expert report that you submitted previously?

DR. BABBEL: They all are.

MR. TAMBE: And, if you can turn to Exhibit 138, could you confirm that that's a copy of your expert report in this case?

DR. BABBEL: Yes, it is.

MR. TAMBE: And do you adopt as your testimony in this case the opinions that you expressed in your expert report?

DR. BABBEL: I did.

MR. TAMBE: So, let's discuss--let's start by discussing your first opinion, back to the demonstratives. And I believe you stated--that your first opinion begins with a valuation of cash flows. So, why are we valuing cash flows?

DR. BABBEL: Cash is transferred to Lehman Brothers, who purchases securities and delivers those to the TSA. And

they do this through a long period of time. In the contract, it's supposed to go on for many years. And therefore, you have to use forward rates and the term structure of spot rates to value such instruments, because they contemplate the future delivery of securities and the future passing of cash from one party to another.

MR. TAMBE: Is that what--is that methodology that you just described--is that unique to the Washington TSA contract?

DR. BABBEL: Not at all. It's typical of the methodology that's used when you're valuing an exchange of something that is a variable rate for something that's a fixed rate. And, for the fixed rate, you use the spot rates of interest to discount them, to figure out their present value. And for the variable rate, you determine the cash flows by using the forward rates of interest. And then you discount them by the spot rates.

MR. TAMBE: You've used the phrase previously, and your report talks about the phrase, "the term structure of interest rates."

DR. BABBEL: Yes.

MR. TAMBE: Again, at a fundamental level, what is the term structure of interest rates? What do you mean by "the term structure of interest rates"?

DR. BABBEL: The term structure of interest rates is

a phrase that's used to describe the fact that, if you go into the marketplace, you will be accorded different interest rates depending on how long you want to leave your money tied up. So, if you go to the bank a block away, and ask for what their rate is on their CDs, they will say, "It depends. How long do you want to leave your money?"

Now, if you have a six-month, one-year, three-year, five-year, you could plot those. And, if you plotted those, it would form a curve. And that curve is called the term structure of interest rates. And it's also sometimes called the yield curve. So, that would be the yield curve for certificates of deposit, for instance.

MR. TAMBE: And what you just described, using the example that you just described, is that a forward curve?

DR. BABBEL: No.

MR. TAMBE: Okay. So, let's talk about something that's familiar, a product that's familiar, just like CDs, Treasuries. Right? There is a Treasury spot rate, correct?

DR. BABBEL: There is.

MR. TAMBE: Okay. And--

DR. BABBEL: There's not one. There's a lot.

MR. TAMBE: And does the Treasury publish on a daily basis what the spot rates are?

DR. BABBEL: It does.

MR. TAMBE: Okay. And there's a curve that you can

construct with that?

DR. BABBEL: Yes. Yes, you can. The Federal Reserve is actually the one that I usually go to for the most timely publications.

MR. TAMBE: And I know your report has some data, which you pulled, I believe, either from the Treasury or the Fed, is that right?

DR. BABBEL: Yes, the Fed.

MR. TAMBE: So, if you turn to slide 13, sir, can you describe for the Court what that is?

DR. BABBEL: Oh, that is the term structure of interest for U.S. Treasury securities on March 25th, 2009. And, in fact, I've got a pointer. I'd like to just describe it, if I may.

THE COURT: Okay.

DR. BABBEL: So, for five-year debt, for instance, the going rate was about two percent.

MR. TAMBE: And was that two percent over the five years or two percent per year?

DR. BABBEL: Two percent per year.

MR. TAMBE: Okay.

DR. BABBEL: Okay? And, for, say, 15-year debt, it was costing the Treasury about four percent to issue 15-year paper. And it shows what the rates were across the entire spectrum, only going up to 20 for years, but the Treasury goes

out for 30 years and, in some cases, some instruments, 40.

THE COURT: Can I just ask one question? The legend of maturity in years since March 25th, 2009, is that--is this a snapshot of the rates on March 25th, 2009?

DR. BABBEL: Yes.

THE COURT: Okay. Thank you.

MR. TAMBE: And, just to follow up on that question, if you were in the market and buying a 10-year Treasury on March 25th, 2009, what does the spot curve tell you the yield would be?

DR. BABBEL: I think it looks like about 3.3 percent, I guess, for--

MR. TAMBE: And what you would get--I'm sorry--and, for that, what you would get is a 10-year instrument. Is that right?

DR. BABBEL: Yes.

MR. TAMBE: Okay.

DR. BABBEL: Something where you pay today and you don't get any cash flow until 10 years, and then you get the entire piece back.

MR. TAMBE: And is this a forward curve?

DR. BABBEL: No, this is a spot curve.

MR. TAMBE: Okay. So, how do you get, or can you get, from a spot curve to a forward curve?

DR. BABBEL: Yes, you can. And just to solidify the

notion of spot curves, spot curves always start today. And they go out into the future. Forward curves, (indiscernible), and they can start in the future and finish in the future.

MR. TAMBE: And, before we get into some analogies that describe what that calculation is and how a spot curve shows you a forward curve, what's the basic methodology?

DR. BABBEL: Usually, you start with the transactions and the spot curve, and you find out what forward curves are mathematically embedded in them.

MR. TAMBE: And when you say you look at the transactions, in the case of Treasuries, were there any transactions on March 25th, 2009?

DR. BABBEL: There were hundreds of thousands of transactions, yes.

MR. TAMBE: How would you describe the U.S. Treasury market in March of 2009?

DR. BABBEL: It's--it was very liquid, a lot of interest in it, and a lot of transactions.

MR. TAMBE: Any sense of the size of that market?

DR. BABBEL: Yes, it's in the trillions of dollars.

MR. TAMBE: And are there transactions happening in that market that determine where the spot rates are?

DR. BABBEL: That's--the spot rates are entirely determined by transactions.

MR. TAMBE: So, you and I have talked about this at

various times over the past few months, and you've tried to explain to me how you arrive at a forward rate from a spot rate. There's an analogy that you've used with me. Could you share that with the Court?

DR. BABBEL: Sure. If we could go to slide 15?

MR. TAMBE: Could you describe what this analogy is?

DR. BABBEL: Sure. This is, your Honor, my daughter, who is a world-class runner. So, a world-class runner who's up for a 100-yard dash takes about 10 seconds. And, if you want to figure out how many yards per second, take 10 seconds, divide it by 100, and it's 10 yards per second. This tells you how fast the runner gets from Point A to Point B.

Now, if the same runner can get from the starting line to the 50-yard line, it takes six seconds. And then you can figure out how long it takes to get the remaining 50 yards. If you know it takes 10 seconds to get the full distance, six seconds from the first, because, when you start off the blocks and get your acceleration, it takes a while, and so the first 50 yards are almost always slower than that. But then, the next 50 yards, you simply take 10 seconds and subtract out the six it took to get 50. And you know that it only took four seconds to get to the finish line.

And if you want to (indiscernible) the speed in terms of yards per second, we already calculated the 10 yards per second as an average over the whole period. But that's certainly not-

-the runner doesn't go at a constant speed. So, then, for the first 50 yards, at six seconds, that gives eight and a third yards per second. But the last 50 yards only took four seconds. So, that's 12.5.

This is sort of like--it's analogous to the way money grows. Money grows at one rate for the short term, and then it grows at another rate later on, and you can use this analogy to sort of get a feel for it. But you can see this is not a theoretical time here. You know that they get from start to finish in 10 seconds and six seconds for the first 50. You know (indiscernible) theory.

MR. TAMBE: So, if you know one and two, three is just math.

DR. BABBEL: You ought to--it's all math.

MR. TAMBE: So, let's now go to interest rates from runners.

DR. BABBEL: Okay. I'm going to show you how we calculate forward rates. So, if you have $100, you want to invest it today, and you want to invest it for two years, you would go to the bank and they would say, "Okay, we're going to give you 2.47 percent, two years." Right? You put the (indiscernible) $100, you will get $105 back. And the effective annual rate of that is about two and a half percent, because you're getting $5, divided by 100, five percent over two years, which is about two and a half percent per year.

MR. TAMBE: Why is it not exactly two and a half percent?

DR. BABBEL: Well, because the money grows at a rate during the first year, and then you have a higher amount of value. And that also grows at the same rate, same average rate. So, it's compounding. It's just a little bit of difference, here.

Now, if you instead were to go to the same bank and say, "Well, I want to invest for just one year," give them your $100, "What will you give me at the end of the year?" and they'll say $102. Okay? So, what is the interest rate being earned from the first year? Well, (indiscernible) $2. You spent $100. So, you have two percent rate of return. Okay?

MR. TAMBE: So, now, if you know those two pieces of information, one and two, can you figure out, can you calculate, what the one-year rate of interest will be starting at the end of year one, going to year two?

DR. BABBEL: Yes. So, in this particular example, you already know that you--for a two-year period, you're going to get back $105; for a one-year period, 102. That means, going from the end of the first year into the second year, you're picking up another $3 to equal the 105.

So, you just replace what's the rate of interest that you've earned during that second year. You've earned 2.94 percent, which is equal to the $3 that you've then divided by

the $102 that you have started with, because you've already--in the marketplace, $100 is worth 102 in a year.

So, you see that this area in red here is (indiscernible) forward (indiscernible), which is telling you (indiscernible) today and say, "I want to give you some money in a year," and they will tell you what the money will earn next year. They can tell you that from the term structure of interest. So, they can provide that kind of a contract for you.

MR. TAMBE: Well, why does it have to be that way?

DR. BABBEL: Note, again, this $100 is starting (indiscernible) 105 (indiscernible). But this is simply an average rate. Take a look at it. Two percent and 2.94, add them together, divide by two, it's 2.47. We actually do geometric averaging, but it's within a, you know, hundredth of a decimal point. So, to have consistent pricing in the marketplace, it requires that the forward rate complete the short-term spot through the--your longer-term spot.

MR. TAMBE: What would happen if it didn't?

DR. BABBEL: Well, then people like--people that are interested in earning a little bit of extra money, or a lot of extra money, could make a lot of money, because any time that the rates are inconsistent there are investors that will take advantage of that. And their very efforts to take advantage of that forces up the prices of some, lowers the price of others, and so that the interest rates line up.

MR. TAMBE: And the people you're talking about are the people who transact in the market--for example, in the market for U.S. Treasuries.

DR. BABBEL: Yes. So, we had a department that did this all day long. And we would look for any deviations from the term structure. And we would exploit it.

MR. TAMBE: Now, let's go from a simple two-period model into a multiple-period model. Does the math still work?

DR. BABBEL: It's the same exact math.

MR. TAMBE: Okay. So, let's go to slide 17.

DR. BABBEL: Yeah, this is simply a picture from one of my books. And it's, again, looking at spot rates, which I'm denoting by an S. This is a one-year spot rate (indiscernible) from time today to one year. And they could create or quote another rate for two years, S sub-two, or three years, or four years. And the--

MR. TAMBE: Can I just stop you there for a second? So, just for purposes of the analogy, the S1, S2, S3, S4, you could think of that as Treasury bill--the spot rate, so someone in the market today is getting paid S1 for six months, S2 for a year, S3 for three years, S4 for 10 years? Is that right?

MR. LAWRENCE: Your Honor?

THE COURT: Yes.

MR. LAWRENCE: I've been very lee--giving a lot of leeway, but that's too objective, and I'll object to that.

Leading, and I'll object.

THE COURT: It's too leading.

MR. LAWRENCE: Leading, yeah.

THE COURT: Let's try to balance the need to move it along with the goal not to lead the witness.

MR. TAMBE: Not a problem.

THE COURT: Okay.

MR. TAMBE: So, can you translate or analogize this model, or this graph on page 17, with the spot rates that we just saw on the previous slide, the curve, the Treasury curve?

DR. BABBEL: Yes, I can. So, in the marketplace, these spot rates (indiscernible) different. The longer-term rates could be higher or lower than the short-term rates. It depends on the day. But, if you look at this forward rate one, F sub-one, you would see that it starts at time one and it ends at time two. If you look at time one and just draw a line down here, it goes right through the end of the S1 period. And time two goes right to the end of the S2 period.

So, basically, it's the difference between this S sub-two and S sub-one. That difference will give you the forward rate of interest for that period. We've just calculated that; it was 2.94 in the example I gave.

Similarly, if you want a forward rate--if you want to secure some sort of rate that you can borrow at or invest at for time two to time three, there is a spot rate that will take

you three years out. Subtract out the spot rate of two years out, and that gives you the forward rate for that time period. And it's similar for time four. It's the four year spot rate, subtract out this, and the remainder is the forward rate for the fourth period.

MR. TAMBE: Well, you will hear it, no doubt, on cross-examination, but the TSA couldn't go out and buy F2 or F3. All they could do, on March 25th, 2009, was buy F0. Well, what relevance, if any, is there to the fact that you can calculate F1, F2, F3?

DR. BABBEL: If you're trying to figure out the market value of the contract, it's based on these forward rates and the spot rates. That's what--that--the only thing the market has available to give you.

MR. TAMBE: Are there people, other than the TSA, who can go out and transact at F1, F2, F3, on March 25th, 2009?

DR. BABBEL: Sure, probably everybody in this room.

MR. TAMBE: And the activity you described before, the movement of prices, if there's any kind of disparity here, would that be featured in those kinds of transactions, other market participants going in and transacting at F1, F2, F3?

DR. BABBEL: Yes.

MR. TAMBE: Okay. So, now let's go back to the Treasury curve. And I asked you whether the curve that you had shown me previously, the curve on page 13--

DR. BABBEL: Yes.

MR. TAMBE: You said that was not a forward curve; that's a spot curve.

DR. BABBEL: That's right.

MR. TAMBE: So, does the Treasury also publish a forward curve?

DR. BABBEL: The Treasury does, and the Federal Reserve does.

MR. TAMBE: Okay. And have you graphed that?

DR. BABBEL: Yes, I have.

MR. TAMBE: Okay, where is that?

DR. BABBEL: I think that's Slide 18.

MR. TAMBE: All right. Now, the data on slide 18, that's derived from the Fed data that you got from the Fed?

DR. BABBEL: Yes, it is.

MR. TAMBE: Okay. Now, that shows a forward curve that's actually above the spot curve. You see that?

DR. BABBEL: It's above the spot curve for part of it, and below it for part of it, yes.

MR. TAMBE: Can you explain that?

DR. BABBEL: Yes. Remember that I told--that I explained that a spot rate is actually an average of the forward rates that comprise it. So, let--I have a slide that shows this.

MR. TAMBE: Okay, let's go to 19.

DR. BABBEL: Yes. So, let's look at the three-year spot rate. Three-year spot rate looks like it's about a one percent and maybe a quarter, one and a quarter percent. And let's go from here over to the spot rate curve.

Now, this particular number, one and a quarter percent, is actually comprised of an average of this rate, that rate, that rate, that rate, that rate, that rate, and that rate. If you average all those together on the forward curve, you get the spot curve, because, remember, money doesn't go at a constant rate from time zero to time three. It grows at a non-constant rate.

And just to go back to that example that I mentioned in the certificate of deposit, you may say, "I'm going to--I want a one-year--I want to (indiscernible) for one year. But the three-year rate is higher, so I'm going to buy a three-year contract and then, at the end of one year, I'm going to close it out." And you go to--you try that, and you can try that, and the bank will say, "Fine, but we're not giving you this rate," because there's a severe penalty for early withdrawal, and you'll actually get the one-year rate. Actually, it's a little bit worse, typically.

So, the banks count risk management--the banks have to work with the term structure. That's all they have. And it's very difficult to game it.

MR. TAMBE: Now, if you were going for--if you have

this particular fact pattern before you and you said, "Okay, what's the forward rate going to be for the six-month period starting in year three and going to three years and six months," does the spot--does the forward curve tell you that?

DR. BABBEL: It does. And that--it's the next slide I have. And so, I've gone from three years to three and a half years here. And you see the spot rate has a different rate for three and a half than for three. It looks like it's about 1.4 percent versus one and a quarter.

Now, how did it--why is the rate higher? Because the forward rate is higher. And what we're doing to get this three and a half year rate is now we're averaging together all of these forward rates. But we've added one more forward rate, which is higher. That takes the whole average up, which causes this spot rate to go up a little.

MR. TAMBE: And what you observe in the market, in terms of transactions, are transactions are occurring on the spot curve, is that right?

DR. BABBEL: You do.

MR. TAMBE: Okay. And can you calculate the forward curve based off--based on those spot curve observations?

DR. BABBEL: Yes.

MR. TAMBE: Okay. Now, what's behind the curves that you do observe in the market in terms of transactions? What kind of information is contained, if any, in those curves?

DR. BABBEL: The real prices that real people pay for instruments, financial instruments.

MR. TAMBE: These are the prediction of the future?

DR. BABBEL: No.

MR. TAMBE: Why? What is--what value, if any, does it have, then, if it's not a prediction?

DR. BABBEL: The interest rates and the term structure give you an aggregate view of the market, of all factors that will affect interest rates. They include expectations. They include monetary policy. They can include fiscal policy. They could include liquidity events. Anything that affects interest rates is embedded in the term structure, including expected future rates.

MR. TAMBE: We've had a discussion in this case, from time to time, about snapshots. Now, what is it that the spot curves and the forward curve on a particular date tells you about future interest rates?

DR. BABBEL: Yes. They don't speak as much about future interest rates as they do about what the market allows you, today, to provide for in the future. And it is the market's price today for delivery of cash flows in the future. It's all embedded in the interest rates, the forward rates.

MR. TAMBE: Criticism is made that, well, because, in the subsequent four years from 2009 to 2013, actual observed rates were lower than what the forward rates were back on March

25th, 2009, that the Court should give--should disregard the forward curve analysis. What's your reaction to that?

DR. BABBEL: That it doesn't make sense to me.

MR. TAMBE: Why not?

DR. BABBEL: Because the market participants depend on and transact on the spot rate and the forward rate curves. Even the Treasury can't issue debt at some rate that's not in those curves. It just didn't make sense to me.

MR. TAMBE: Now, is it consistent at all with finance theory as you understand it?

DR. BABBEL: No, it doesn't--it violates finance theory, economic theory, market practice, industry standards. It's just--it's irrelevant.

MR. TAMBE: Putting aside theory, in practice, in work you did at Goldman and the work you did at GE, did you apply this methodology, the use of spot rates, forward rates, to provide advice, to provide services to those entities?

DR. BABBEL: Always.

MR. TAMBE: Okay. And you did that knowing that the forward curve was not predicting the future, correct?

DR. BABBEL: That's right.

THE COURT: Can I interject with one question? So, this is not--a snapshot, if you will.

DR. BABBEL: It's a snapshot on March 25th.

THE COURT: On March 25th. So, if we went--if we

came back a year later, on March 25th, 2010, it might--the two curves might look the same, or they might look different, because you will then have had a--well, forget about the year that already passed. In terms of the--to the extent that we could superimpose year one through 24, it would shift over to the right, in my mind.

DR. BABBEL: Right.

THE COURT: Right? So, it might look the same and it might look different. It might shift up; it might shift down.

DR. BABBEL: That's correct.

THE COURT: Is that correct?

DR. BABBEL: Yes.

THE COURT: And that's because of the subsequent transactions that will have occurred?

DR. BABBEL: Yes.

THE COURT: And those subsequent transactions, for example, on 15-year paper, would be maybe at slightly different rates, different volumes, and that's what would have caused the curve to shift, because the spot prices shift, because the actual transactions then occurred?

DR. BABBEL: Yes. And a lot of information has happened since the beginning. So, we have new facts in the economy, and those will also cause the curves to shift.

THE COURT: But that's where it's been said that you then say, "You see? The point on this curve is not the same as

the point on the curve the year later. So therefore, you shouldn't be using this curve to predict what the curve in a year will look like." That's--I'm just asking, again, the question that Mr. Tambe asked.

DR. BABBEL: Mm hmm.

THE COURT: So, if you could try--give--answer the question again?

DR. BABBEL: Sure.

THE COURT: As to why that's not a valid observation?

DR. BABBEL: The problem was the word "therefore."

THE COURT: Okay.

DR. BABBEL: We don't base our monetary decisions today on things--if we're going to try to secure in the future, for our cash flows, we don't base them on something that we don't know. And the market today tells you what the price is today for securing these future cash flows, or future rates.

And, I mean, you can make guesses, but those expectations that you may have would be different than somebody else's expectations. And if you're going to have an agreement, they have to base it on something that they have in common, which is the term structure of interest, which tells you the price at all future points in time for making transactions.

THE COURT: Thank you.

MR. TAMBE: If you're transacting in the market, do you get to set your own rate?

DR. BABBEL: No.

MR. TAMBE: You take the rate that the market sets, correct?

DR. BABBEL: Yes.

MR. TAMBE: And that rate in the market, is that set just by your transaction, or by other transactions?

DR. BABBEL: It's by all the transactions in the marketplace. When you asked if you could set your own rate, I suppose you could say, "The market rate for five-year paper is two percent, but I'm going to pay 10 percent." You could do that. And watch how fast you go.

MR. TAMBE: Would that be fair value? Would that be fair value, in your opinion, sir?

DR. BABBEL: No, it would not.

MR. TAMBE: Let's move forward to--pardon the pun. Let's move ahead to 23.

DR. BABBEL: Okay.

MR. TAMBE: Would you--on slide 23, again, you set out, and we talked about it before, your two basic criticisms of the Curry/Hasterok approach. Is that right?

DR. BABBEL: That's right.

MR. TAMBE: And can you--so, can you take those one at a time and describe your critique of each of those positions?

DR. BABBEL: Sure. I also created a slide, which I

like better than this, but here's the brief explanation. Mr. Curry and Hasterok calculate future cash flows for a termination value. And both financial theory and market prices require the use of market-determined forward interest rates to compute future cash flows. They decided not to follow those--the theory or the practice.

Second, they use--you have to discount those cash flows to figure out their present value. The market--I should say financial theory, market practice, and industry standard is to use the spot rate curve to discount. And they didn't do that. Instead, they used a replacement yield discount rate, which they substituted for the spot rate curve.

And they also substituted it for the forward rate curve. So, it was one and the same, and it never changed for 23 years, and that can't happen. I've never seen anything like it.

MR. TAMBE: Let's just focus on the second part, which is the discount rate issue.

DR. BABBEL: Yes.

MR. TAMBE: What's wrong with the discount rate they used?

DR. BABBEL: Well, the market's telling you that, if you're going to deliver something in 10 years, there's the particular rate that's applicable to 10 years. And they're not using that rate. The market's telling you there's another rate for five years; there's another rate for 23 years. They aren't

using any of those rates.

But that's what the finance--financial markets do, what the professionals do, and that's what bank--all the financial institutions have to deal with these--the term structure of interest rates. And you have to use the appropriate discount rate if you want to know its present value. They have a value that's not a present value. It's just--it's a number.

MR. TAMBE: May I have a moment, your Honor?

THE COURT: Mm hmm.

MR. TAMBE: When we were talking a few minutes ago about one or two criticisms of the Curry and Hasterok approach, you said there was a slide you liked better than this one.

DR. BABBEL: Yes.

MR. TAMBE: What slide is that?

DR. BABBEL: I like 25 and 26. It makes it easier for me to explain what's going on in a nutshell.

MR. TAMBE: Please do.

DR. BABBEL: Okay. (indiscernible) just repeating the same forward curve that was available on March 25th, 2009, snapshot.

MR. TAMBE: That's the Treasury curve, right? The Treasury forward curve?

DR. BABBEL: That is the Treasury curve. There's also one for commercial paper. There's one for (indiscernible) bank offer rate. There's one for agencies. You can make one

for CDs. Okay? But this is the one for the Treasury. I'm just using that to illustrate the technique.

Then, to--and Curry and Hasterok assumed this red line, the 65 hundredths of one percent. And if you see--if you go to the next page, the next slide, I'll show you what they did with it. In their model, as I understand it, the valuation exercise, they take the 4.484 percent, which is the constant amount that was provided for in the contract, and they subtract out this amount shown in red.

And so, all of--the difference between the red and the green line is the net cash flow that they say Lehman owes. Of course, that's assuming that the interest rates never change, and it's laid out here, throughout the 23 years.

Now, the market convention is as follows: what you look at is what you're guaranteed, and what the forward curve does. And so, the first amount, the first period of time, would be about the same that Lehman was saying. But as you go forward in time, you see that--or I should say in length of time, you see that the difference between the green and the blue is less positive, or less negative, than the TSA statements. Then it becomes positive, actually, in the other party's favor, then it becomes negative again.

But the market (indiscernible) the forward rates, subtract those from the guaranteed rates to find out what the net cash flow is. And, once you find the net cash flow, you discount

it.

MR. TAMBE: By what?

DR. BABBEL: The spot rate.

MR. TAMBE: Okay, so what spot rate--so, let's take an example. Let's go out, let's say, five years.

DR. BABBEL: Yeah. So, the five-year spot rate, I don't think I have it. Yeah, I have a--I'd have to go back to the previous chart, but it was--

MR. TAMBE: You can just hold the (indiscernible) there if you think it's easier, or just hold something there to show it.

DR. BABBEL: Okay.

THE COURT: Can--before you go on, can you just explain, given that, under the operative documents, the TSA and Lehman, pursuant to the RFA, could not tender instruments that had maturities that were this long, why am I looking at a curve that is plotting the value of rates with respect to maturities that are that long?

DR. BABBEL: Good question. Because the agreement was entered into several years earlier.

THE COURT: Yes.

DR. BABBEL: And there was actually a different curve.

THE COURT: Right.

DR. BABBEL: At that time. And for Lehman to be able

to make the promise that they did, to become a counterparty to the TSA, they had to use the rate that was available at that time. And then they could secure all of those transactions and make sure that they were available for TSA.

Now, time has passed. The contract has been terminated or rejected. And there's a different curve. So, you have to find out what is the market offering then versus what it was offering, if you're going to calculate damages. And this is what the market is offering at the termination date. So, they would have to use this curve, not the original curve.

MR. TAMBE: And, just to be clear, Dr. Babbel, on 26, the dotted line, that's a forward curve?

DR. BABBEL: This is forward, yeah.

MR. TAMBE: And what's the maturity off those observations? Are those five-year obligations, 10-year obligations?

DR. BABBEL: These are all six-month obligations that Lehman would have had--they would have had to use the forward curve so that they could transact and secure those rates.

THE COURT: So, those are all maturities of six-month obligations?

DR. BABBEL: They are.

THE COURT: Thank you.

DR. BABBEL: You had a question pending about the five-year rate for discount use.

MR. TAMBE: Oh, yeah, yeah. So, I was just going to use the example, if you could describe, use--again, going back--

DR. BABBEL: With the pointer?

MR. TAMBE: The pointer, yeah.

DR. BABBEL: Okay. So, these are the forward rates. That's how you map out the cash flows. You have to map out the time of the cash flows, or the deliveries of the securities, and also the size. For that, you've mapped out those, then you discount the credit using the spot rate. If you recall, the spot rate was lower. And it was something about like this. (indiscernible)

But so you discount with the spot rate because the spot rate tells you your future cash flow half and your delivery half in a future time. And you discount the spot rate to find out the present value. That's what everybody does.

There's only one exception to it. Some people, instead of taking the spot rate and discounting by it, they discount by all of these forward rates up to that time. And they come out mathematically the same anyway. You can do it either way. But you don't have--I've never seen this done before. And I don't know of the markets (indiscernible) that, not in the United States.

MR. TAMBE: Thank you, Dr. Babbel. I have no further questions.

THE COURT: Okay.

MR. LAWRENCE: Can we just take a five-minute break?

THE COURT: Sure.

Or the out, Mr. Tambe?

MR. TAMBE: Sure. Yeah.

MR. LAWRENCE: Never think of it.

THE COURT: It's okay.

MR. LAWRENCE: So, I'm ready.

THE COURT: Okay. We're all ready, I think.

MR. LAWRENCE: Good afternoon, Professor Babbel.

DR. BABBEL: Good afternoon.

MR. LAWRENCE: Do you prefer Professor or Doctor?

DR. BABBEL: Professor.

MR. LAWRENCE: Could I get the slide right?

DR. BABBEL: Or Mr. Babbel is actually preferred.

MR. LAWRENCE: It's up to you.

DR. BABBEL: Mr. Babbel.

MR. LAWRENCE: Okay. So, let me just make sure we're on the same page as to what you did not do for this opinion. You did not provide any opinion at all on the valuation of the reserve fund agreement at issue in this case. Is that right?

DR. BABBEL: That's correct.

MR. LAWRENCE: Okay. So, no evaluation of TSA's total losses or damages, correct?

DR. BABBEL: Correct.

MR. LAWRENCE: Okay. What you're here to do is to help us understand what the forward curve is and how it's used in the market, correct?

DR. BABBEL: It's one of the reasons I'm here, yes.

MR. LAWRENCE: Okay. Now, let's go to slide number 16.

DR. BABBEL: Yes.

MR. LAWRENCE: Now, you used this slide to explain how you calculate the forward curve, correct?

DR. BABBEL: Yes.

MR. LAWRENCE: Okay. So, what I heard you say is that, if I went to a bank and bought a two-year CD that would pay two percent a year--is that right? Am I using that number--was it some--2.5 percent? I forget what it was. What would this represent?

DR. BABBEL: I didn't say it was a CD.

MR. LAWRENCE: Okay.

DR. BABBEL: I just said, if you invested $100, and I didn't say where you invested it, but you were guaranteed, maybe a bank, to get $5 more in two years.

MR. LAWRENCE: Well, let's use a bank CD, because this would apply for a bank CD, correct?

DR. BABBEL: Sure.

MR. LAWRENCE: It applies to everything. Right?

DR. BABBEL: It applies to financial instruments.

MR. LAWRENCE: Every financial instrument. So, if I go to a bank and say, "I want to buy a CD for two years, and I want to get--and I get $105 at the end of two years," that's your top bar, correct?

DR. BABBEL: That's right.

MR. LAWRENCE: Okay. And that same bank, and that's an annualized rate of return of 2.47 percent over that two-year period, correct?

DR. BABBEL: Correct.

MR. LAWRENCE: And that's what the bank would be offering you, "We'll give you 2.47 percent; give me your $100; in two years, I'll give you the 105."

DR. BABBEL: In this example, yes.

MR. LAWRENCE: And the second line, you would go to the bank and say, "No, I don't want to do a two-year CD; I want to do a one-year CD. What is the rate for a one-year CD?" And the one-year CD rate is two percent, not two and a half percent, so I'll get $2 back at that.

DR. BABBEL: That's right.

MR. LAWRENCE: And then what the forward curve is trying to figure out--well, if we know those two rates, because they're actual rates that the bank is offering, what do we expect the bank to offer, one year from now, for a one-year rate? Correct?

DR. BABBEL: It's not what we expect them to offer,

what we can ask them today to offer me in one year. "I'm going to make this deposit one year from now; what rate will you offer me?" And they will say this other rate, 2.94.

MR. LAWRENCE: Well, this goes to the heart of my question. If I go into a bank, can I go to the bank and say, "Hey, I want to give you $100 one year from now. Give me a CD right now that allows me to do that," can you do that?

DR. BABBEL: A CD?

MR. LAWRENCE: Yeah.

DR. BABBEL: You could get a forward purchase agreement.

MR. LAWRENCE: You could get a forward purchase agreement. I'm--we're talking about CDs. These are CD rates, correct?

DR. BABBEL: Yes.

MR. LAWRENCE: So, you would agree that I can't go into a bank today and say, "I'm going to come in in a year with $100, and you give me 2.94 percent." Correct?

DR. BABBEL: You could arrange for it if you have a large enough transaction, yes.

MR. LAWRENCE: Well, what really this is telling you is that, if I wanted to take advantage of that 2.94 percent, I could go into the market and find another market participant and say, "Hey, I want to earn 2.94 percent for this year, and let's do some sort of transaction that will allow me to earn

that."

DR. BABBEL: Correct.

MR. LAWRENCE: And that's a transaction based on information on day one, correct?

DR. BABBEL: Yes.

MR. LAWRENCE: And, in doing that, I may be getting that fixed rate of return at 2.94 percent, and I don't have any interest rate risk, right? I've been guaranteed that rate of 2.94 percent, correct?

DR. BABBEL: You're defining interest rate risk differently than most people would in the market.

MR. LAWRENCE: Well, I'm--when I say interest rate risk, what I'm talking about, the risk that, if I went in a year from now with my $100 to a bank, that maybe the interest rate might not be 2.94 percent. It might be 2.5 or 3.6 percent. So, that's the risk I'm talking about. Would you rather use a different term than interest rate risk?

DR. BABBEL: Well, we say interest rate uncertainty, yeah.

MR. LAWRENCE: I'm happy to use that.

DR. BABBEL: Okay.

MR. LAWRENCE: But, basically, I've gone to somebody and they said, "Okay, I'll give you 2.94 percent, guaranteed, for that period, from year one to year two." And I don't have any interest rate--I'm sorry, what did you want me to use?

THE COURT: Uncertainty.

MR. LAWRENCE: Uncertainty. Okay, thank you, your Honor. I don't have any interest rate uncertainty. But the person who I made the deal with is basically carrying that interest rate uncertainty, correct?

DR. BABBEL: I don't know if they will carry it or if they will hedge it.

MR. LAWRENCE: They can hedge it. You can always hedge interest rate secure--that's the basis of the market, is that you can hedge interest rate unsecurity, correct?

DR. BABBEL: Oftentimes, you can hedge it.

MR. LAWRENCE: Yes.

DR. BABBEL: Not always.

MR. LAWRENCE: So, if I'm the person who's giving the guaranteed 2.94 percent, I could basically just sit there and hope, or I could sit there and do another transaction to hedge to make sure that I don't lose money on interest rate variations between now and a year from now. Correct?

DR. BABBEL: That's correct.

MR. LAWRENCE: But I can't go to the bank and say, "Hey, I've got this forward curve thing, and that tells me you should give me 2.94 percent when I come in a year from now and give you my $100," right?

DR. BABBEL: Well, it'd be nice if you had--if you had checked the forward curve, you could tell if they were

making you a market offer or they're trying to get by more cheaply.

MR. LAWRENCE: But that's not how--banks don't work on CDs. You can't buy it a year in advance. Correct?

DR. BABBEL: Well, there are negotiable CDs. And, with negotiable CDs, you can buy and sell them, and you can even short them, and you can create this sort of forward rate.

MR. LAWRENCE: But I think, during your testimony with Mr. Tambe, you made the point that, if you came in to buy this to--and get the 2.47 rate, and decided to withdraw your money after a year, there's going to be a penalty.

DR. BABBEL: There will be.

MR. LAWRENCE: Yeah, yeah. And so, if I'm a participant and I take an investment that's two years but I actually need that money a year later, I need to draw down an investment, there's going to be a penalty.

DR. BABBEL: Yes.

MR. LAWRENCE: Can we go to slide 18?

DR. BABBEL: Can I say there will be a penalty if you--

MR. LAWRENCE: You're not allowed to answer a question--you're only allowed to answer questions, sorry. Thank you.

DR. BABBEL: I thought I was.

THE COURT: Unless there's a question pending--

DR. BABBEL: Okay.

THE COURT: We can't hear from you further.

DR. BABBEL: Okay.

THE COURT: If there's anything that needs clarification, Mr. Tambe has another opportunity to ask you some more questions.

DR. BABBEL: Thank you.

MR. LAWRENCE: So, in this chart, you're showing the dotted line is a forward curve, correct?

DR. BABBEL: Correct.

MR. LAWRENCE: I just want to understand something. If we look at the returns over the course of this 23 years as reflected in that forward curve, you could come up with an average over the 23 years, right?

DR. BABBEL: Yes.

MR. LAWRENCE: And that would be expressed as a single rate?

DR. BABBEL: You could do that, yes.

MR. LAWRENCE: So--and I don't want to--I don't need you to do the math or me to do the math, so just, for example, let's just say, I look at this, let's say three and a half percent is the average return over those 23 years. I could ask you, "What is the average return over 23 years?" And you could tell me, "It's three and a half percent." Correct?

DR. BABBEL: That's correct.

MR. LAWRENCE: Yeah. So, if I say, "Okay, that's great; I'm going to earn three and a half percent over the next 20 years," that doesn't necessarily mean I'm earning three and a half percent per year, correct?

DR. BABBEL: That's correct.

MR. LAWRENCE: It means I'm going to earn three and a half percent over the life of that period.

DR. BABBEL: Correct.

MR. LAWRENCE: So, when Curry and Hasterok said that they're going to earn--that--or when they opined that the TSA will earn 0.6--I'm sorry, 0.68 percent over the course of--or 0.65 percent over the course of 23 years, that's--you understand that to be the average yield over the course of that 23-year period, don't you?

DR. BABBEL: No.

MR. LAWRENCE: Okay. Now, you know--you looked at their report, correct?

DR. BABBEL: Yes.

MR. LAWRENCE: And you--their report showed that, for the four years after March 25th, 2009, the TSA was actually earning substantially less than 0.65 percent. Correct?

DR. BABBEL: That's correct.

MR. LAWRENCE: Okay. And they knew that at the time they presented their opinion, correct?

DR. BABBEL: Yeah, they forecasted with--forecast

interest rates with four or five years of hindsight, yes.

MR. LAWRENCE: But, looking at the--looking at what they said, that the TSA is going to return an average of 60--return 65 percent, 0.65 percent, over the 23 years, and recognizing that, for the first four years, they were substantially below that, to achieve that 0.65 percent over the 23 years, they will in fact have to earn more than that between 2013 and 2023, correct?

MR. TAMBE: Objection, form of the question. If there's a specific part of the Curry/Hasterok report that supports what counsel is saying to this witness, he should show it.

THE COURT: I understand the question. So, let's keep going and see if Dr. Babbel understands the question, because the question is whether or not Curry and Hasterok assumed the 0.065 percent for every year, or whether, as you just testified, that reflects an arithmetic average over the remainder of the years to 2032.

MR. LAWRENCE: Mm hmm.

THE COURT: Is that what you're trying to ask?

MR. LAWRENCE: That's what I'm trying to get at, yes.

DR. BABBEL: I may not have spoken clearly, if I testified to that. I think I testified that you could calculate an average. I didn't testify that that's what they would get. But, yes, you can calculate an average.

MR. LAWRENCE: So, when you go--if you could turn briefly to 26, you depicted this not as an average but as a constant yield, correct, the Curry/Hasterok replacement yield?

DR. BABBEL: Yes, that's what I did.

MR. LAWRENCE: If you can go back to that slide we were just at on 18?

THE COURT: Could you--before you flip back, go back.

MR. LAWRENCE: Oh, sure. Let's go back to 26.

THE COURT: Yeah. So--yeah, that one. Okay. So, to follow up on the question that Mr. Lawrence is asking, if you took the red curve, which is the Curry/Hasterok curve, and, to mimic the point that Mr. Lawrence is trying to make that immediately, in the early months after the termination, it was extremely low, it was barely above zero--

DR. BABBEL: Yes.

THE COURT: And, in order to get to the 0.065, it's going to have to be higher, you--would it be more accurate to generate a slightly bowed curve? In other words, you could mathematically figure out what the rates would have to be, and it could be more than one scenario, that would yield--no pun intended--the 0.65 rate that they're assuming.

DR. BABBEL: Yes, if I could--

THE COURT: You understand what I'm saying?

DR. BABBEL: Yeah, I think so. And let me try to explain the--

THE COURT: In other words, counsel is saying, "Oh come on, they're not saying it's, every time you look at it, 0.65. They're saying, over the 23 years remaining, that's going to be what the arithmetic average is. It's going to have to go a little higher because, in the very early days, and maybe even now, I don't know, it's so low." So, would it be more accurate to have the red line be a very flat but curved line, a curved shape instead?

DR. BABBEL: Mm hmm. Let me try to explain, with this pointer helping.

THE COURT: Please.

DR. BABBEL: If I understood the question right, you're saying this flat line, which reflects the single rate, could actually--you could achieve similar results if you had a line that started lower and got higher at some point.

THE COURT: That's right, yes, nipped up above--

DR. BABBEL: And then you could average those together. Right.

THE COURT: Went up to, like, 1.3, came back down.

DR. BABBEL: Yes. Only problem is that, on any day in those three years, there was never a forward curve like that. The forward curve always looked like this. We plotted it out year after year after year. And the forward curve tells you what the market is willing to transact at, knowing that you want to transact.

MR. LAWRENCE: And we'll get to what the forward curve--

THE COURT: Okay. Thank you.

MR. LAWRENCE: My point is simply, if you have low interest rates here--and you could look at the chart--so, that you're going here, in order to achieve the 0.65, at some point you're going to have to cross the line and start earning higher interest rates, correct? On average.

DR. BABBEL: Yeah, but it's no longer--

MR. LAWRENCE: Can you answer that question? Is that accurate?

DR. BABBEL: No. And here's why, because this is not--that would not be a term structure of interest. That would be a plot of historical rates.

MR. LAWRENCE: I'm not asking you whether it's a term structure of interest. I'm not asking you whether it's a forward curve. I'm simply asking you, whether to achieve a .65 average, and you're starting out here, interest rates would go above, and if you plotted the line, it would look something like that.

DR. BABBEL: Yes, now we've changed the access, and it's not in maturity. It's a time plot of the actual interest rate.

MR. LAWRENCE: Sure, and we'll go to maturity in a second. But in the same way, that if you wanted -- we talked

about an average of this forward curve, which you decided that the average was 3.5 percent, I guess theoretically, you could draw a straight line across. That just wouldn't be a forward curve, right?

DR. BABBEL: That's correct.

MR. LAWRENCE: Okay. So let's talk about the forward curve for a second. I want to make sure that we understand what it is. These are based on actual transactions, as of a single date, March 25, 2009. Correct?

DR. BABBEL: They are.

MR. LAWRENCE: And that's what you describe, I think, as market expectations, as of March 25, 2009.

DR. BABBEL: No.

MR. LAWRENCE: It's the market information, as of 2009.

DR. BABBEL: Yes, it embeds expectations, and a lot of other things.

MR. LAWRENCE: That's fine. It reflects the market information based on trades, on March 25, 2009. Right?

DR. BABBEL: Correct.

MR. LAWRENCE: Okay. So when we are looking at this curve, and maybe it's best to go back to 18. This curve is representing transactions in Treasuries that mature at various times between year zero and year 23. Correct?

DR. BABBEL: Yeah, between 2009 and 2031.

MR. LAWRENCE: Thank you. So, and correct me if I'm wrong -- the Treasury spot rates, are actually the yield I would get. If I wanted to buy a nine-year Treasury, I'd get roughly three percent.

DR. BABBEL: If it were what's called a zero coupon bond, yes.

MR. LAWRENCE: And if I wanted to buy a 15-year Treasury, I'd get four percent.

DR. BABBEL: Approximately, yes.

MR. LAWRENCE: And if I wanted to buy a 23-year Treasury, I'd get four and a little bit percent.

THE COURT: Okay. Maybe this is my confusion, but I thought when I asked a similar question, your answer was, that this represented six-month Treasuries that matured at each of these times.

DR. BABBEL: If I said that, I apologize. This spot rate curve represents six months. The forward red curve represents six-month securities. This spot rate curve represents securities going from six months to 23 years.

THE COURT: Okay.

MR. LAWRENCE: But just to follow up on this question, when you say six-month rates are reflected in the Treasury forward-rate curve, that's implied six-month rates, correct?

DR. BABBEL: It's mathematically equivalent.

MR. LAWRENCE: What I'm saying is, again, if I go to the Treasury, and I want to buy a six-month T-bill, if I'm using the right term, starting in year six and ending in year six-and-a-half, I can't do that, right?

DR. BABBEL: I can. Can't you?

MR. LAWRENCE: I don't know.

DR. BABBEL: Yes, you can.

MR. LAWRENCE: I can buy -- and what would the rate be?

DR. BABBEL: It would be approximately four and a quarter on that day.

MR. LAWRENCE: Would I buy from the Treasury, or would I buy it from a trader?

DR. BABBEL: You can get it from a trader. You can get it from the Treasury too.

MR. LAWRENCE: I guess I'm a little bit confused myself. Are these based on actual trades, or are these based on implied of the long-term trades?

MR. TAMBE: Just so the record is clear, can we just have in the record, which curve he's pointing to, when he asks that question?

THE COURT: For the record, right.

MR. LAWRENCE: For the record, yeah.

DR. BABBEL: The forward curve can be derived from the spot curve, or you could actually have transaction data, if

you were tracking it, and find out what those were. Because there's always people in the market that need forward commitments, like a mortgage.

MR. LAWRENCE: But you did this from the spot rate curve, correct?

DR. BABBEL: I did. The Federal Reserve did it from the --

MR. LAWRENCE: From the spot rate. So just so we're clear, this curve is generated by looking at transactions in 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 through 23-year maturity T-bills.

DR. BABBEL: Yes, Treasury Bonds.

MR. LAWRENCE: Treasury Bonds, sorry. And then the market looks at that information and says, okay, I can see what the rate is being offered for seven years. I can see what the rate is being offered for ten years. And I can then generate a forward curve, to figure out if I want to trade at this point, on a six-month basis. I use the long-term transactions to come up with a rate, that I can go to another market and say, hey, I want to do a swap. I want to give you dollars to get a fixed rate, deliver Treasuries in year six-and-a-half. And that hedge, or that swap, would be based on the implied six-month rate, at that point. Is that fair?

DR. BABBEL: That's fair.

MR. LAWRENCE: So we're not talking about -- the

actual T-bill transactions are spot rate and the implied rates that people trade on and hedge on and swap on. It's the forward rates.

DR. BABBEL: That's correct.

MR. LAWRENCE: So again, if I am the TSA, or any trader, and I don't have the ability to enter into long-term transactions, of any sort, then I'm basically stuck with what I can get for six months, right?

DR. BABBEL: Didn't you enter into a long-term transaction of some 30 years, with Lehman Brothers?

MR. LAWRENCE: Do you have an opinion that an equivalent contract to Lehman Brothers RFA, was available on March 25, 2009? Have you looked at that, one way or the other?

DR. BABBEL: There were certainly swaps that went out that far and even longer on March 25, 2009, based on forward rates and spot rates.

MR. LAWRENCE: When you say swap, if I wanted to buy a swap out to 2032, how would that work?

DR. BABBEL: In the marketplace, you look for someone -- I don't know if you want to take the floating side or the fixed side. If you want the fixed side --

MR. LAWRENCE: I want the fixed side in return.

DR. BABBEL: Yes, then you look for someone that prefers floating rates. And they may prefer floating rates, because they're better hedges for inflation, or some other

reason. Maybe their clients want something that's floating. And then you can have a transaction, based upon a meeting of those two curves.

MR. LAWRENCE: And so if I then say, oh, gee, I need that money a year from now. You come out a year from doing that transaction, I with the fixed rate says, I need that money now. I need to go into the market again, and do another transaction to get my money out of that. Correct? If I go to you, the trader, you're going to say, it's going to cost you. There's going to be some penalty for early withdrawal, the same way like a CD, right?

DR. BABBEL: I'm not sure that I understand your hypothetical. Can you back up a little bit? There's one piece, that I'm not quite sure on.

MR. LAWRENCE: I have the swap you described -- 23 years out. You're delivering a fixed rate. I'm giving you $45 million.

DR. BABBEL: Okay.

MR. LAWRENCE: I've come to the conclusion -- I need my $45 million back, and it's now one year out, rather than 23 years, okay?

DR. BABBEL: Okay.

MR. LAWRENCE: I can sell my swap to somebody else, correct?

DR. BABBEL: You may be able to.

MR. LAWRENCE: But if interest rates have moved, then I am taking the hit on interest rate uncertainty. They move unfavorably to me, correct?

DR. BABBEL: If they move unfavorably, yes.

MR. LAWRENCE: But under the RFA, there was no interest rate uncertainty that TSA had to face. It was guaranteed for the entire life of the contract. Correct?

DR. BABBEL: There was a big uncertainty. The instruments that you had delivered to you, all had credit risk. Also the counterparty had a credit risk, and you made a bargain with someone with credit risk.

MR. LAWRENCE: Well, we certainly made a bargain with somebody who went bankrupt, and we understand that's why we're here. But in terms of the perception in 2002, I'm going to get my 4.484 percent. I'm telling you -- I'm trying to minimize risk on counterparties on commercial paper, by saying six months. You can only buy six-month commercial paper. You can't buy 23, and you have to buy very high grade. Those are ways that I am trying to mitigate credit risk uncertainty. Correct?

DR. BABBEL: Yes.

MR. LAWRENCE: And Lehman was taking on the credit risk uncertainty, that interest rates would move between 2002 and 2032.

DR. BABBEL: I doubt it.

MR. LAWRENCE: Well, if rates moved unfavorably to Lehman, they still have to pay the 4.484 percent, correct?

DR. BABBEL: Now having been in this industry, I doubt it. Usually, what the dealers do is look for counterparties, so that they can pass on the obligation to someone that prefers that sort of profile.

MR. LAWRENCE: So they can hedge?

DR. BABBEL: Yes, they hedge.

MR. LAWRENCE: So the whole point of this forward curve -- it allows people to transact swaps and hedges to cover the interest rate uncertainty of the transaction. That’s part of what the forward curve is about.

DR. BABBEL: That’s correct.

MR. LAWRENCE: And the forward curve is meaningful to a market participant, if, in fact, they can transact in that way. Correct?

DR. BABBEL: It is meaningful if they can, but that doesn’t mean it’s not meaningful if they can’t.

MR. LAWRENCE: But the people who can take advantage of these swaps and hedges, are people who can transact in swaps and hedges. Correct?

DR. BABBEL: As long as you don’t say, only those who can transact, yes.

MR. LAWRENCE: And you haven’t done an evaluation of the limitations on TSA’s ability to transact in the market. In

fact, that's irrelevant to you. Is that right?

DR. BABBEL: It's irrelevant to the determination of the market value of the change in the contract. But it's not irrelevant to me.

MR. LAWRENCE: It's irrelevant to the use of the forward curve as an indication of value of the contract. Correct?

DR. BABBEL: That's right. The market still has its values, independent of who the actors are.

MR. LAWRENCE: And I think you told -- I'm sorry. I think you told Mr. Tambe that this is valuable information for people who "transact in the market." Right?

DR. BABBEL: It is.

MR. LAWRENCE: And I think you also told Mr. Tambe, that this forward curve is not used for predicting future rates. Correct?

DR. BABBEL: I don't use it for predicting rates. Some people do. It contains expectations in it, but it's really telling you what today's cost is for securing rates in the future and the price of credit.

MR. LAWRENCE: I believe that -- did you not testify that it's not used for prediction? (Indiscernible) should be used, as a professor of finance and academic.

DR. BABBEL: Yes, and you need to add some additional assumptions, if you're going to say that the forward rate is a

predictor of the future short rate. I don't make those assumptions. What I know is (indiscernible) that tells you today's price for securing all of those future rates. That doesn't mean it's necessarily a predictor.

MR. LAWRENCE: Now, the Court asked you a question. I just want to make sure we all understand. Now, if we go a year out from March 25, 2010, and generate a forward curve on March 25, 2010, that will reflect transactions on March 25, 2010. Correct?

DR. BABBEL: Correct.

MR. LAWRENCE: So it's not going to capture all the transactions between March 25, 2009, and March 24, 2010. Correct?

DR. BABBEL: Correct.

MR. LAWRENCE: So it's a snapshot of the market transactions on a single day.

DR. BABBEL: Correct.

MR. LAWRENCE: Just give me a second.

THE COURT: Sure.

MR. LAWRENCE: And just to make sure that we understand, you mentioned -- I'm sorry do you need -- can I --

DR. BABBEL: I'm listening.

MR. LAWRENCE: Oh, okay.

DR. BABBEL: I just found something that sort of addressed your last question.

MR. LAWRENCE: You keep saying that people transact to secure. What you're talking about there, is that, if I'm interested in obtaining a long-term interest rate, I need to transact to secure that rate, by hedges or swaps, for example. Yes?

DR. BABBEL: No. You said, if you want something, that doesn't mean you need to do this. You can do this.

MR. LAWRENCE: If I wanted to do that, I would transact in hedges or swaps. Correct?

DR. BABBEL: You could.

MR. LAWRENCE: Or another thing I could do is, I could buy Treasuries that come due each of the six months between 2009 and 2032. Correct?

DR. BABBEL: They'd mature then, but they all began on day zero?

MR. LAWRENCE: Yeah.

DR. BABBEL: You could come up with long-term rates for each of those, yes.

MR. LAWRENCE: I could go out and buy T-bills at six months, and one year, one-and-a-half and two years, et cetera, et cetera, and then I would absolutely get those spot rates. Correct?

DR. BABBEL: Yes.

MR. LAWRENCE: That would cost a lot of money.

DR. BABBEL: It could, yes.

MR. LAWRENCE: Thank you. I have nothing further.

THE COURT: Okay.

MR. TAMBE: Let's stay with slide 18, Dr. Babbel. We discussed during the direct, that if you are an end-user, like Washington TSA, you don't get to pick your own interest rate. Correct?

DR. BABBEL: That's correct.

MR. TAMBE: Does the market provide the interest rate?

DR. BABBEL: It does.

MR. TAMBE: Okay. And how does the market provide the interest rate to end users like Washington TSA?

DR. BABBEL: You start with the term structure, which gives you the base to work from, and then if there's some credit risk or some other issues, you can adjust it.

MR. TAMBE: The forward curve that you were asked about, I think Mr. Lawrence made the point that the TSA couldn't transact on that forward curve. Do you recall that?

DR. BABBEL: I heard that, yes.

MR. TAMBE: There are participants in the market, who were transacting on that forward curve. Correct?

DR. BABBEL: Absolutely.

MR. TAMBE: And those transactions have a connection to the spot rate. Do they not, sir?

DR. BABBEL: They do.

MR. TAMBE: Can those transactions occur at rates that diverge from the spot rate?

DR. BABBEL: If they do, you end up opening yourself up to having your wealth arbitraged away.

MR. TAMBE: And is that, in fact, what happens in markets like Treasury markets, where there is arbitrage, to get rid of any of those differences?

DR. BABBEL: Yes.

MR. TAMBE: And how quickly does that happen, in your opinion?

DR. BABBEL: We were doing it very quickly at Goldman. I watched those screens, and we were isolating those deviations, minute by minute.

MR. TAMBE: And those transactions of other people, not end users like TSA, other people are entering into those transactions on the forward curve. Correct?

DR. BABBEL: Yes.

MR. TAMBE: And that's generating data. Correct?

DR. BABBEL: It is.

MR. TAMBE: And if you are an end user like the TSA, and you wanted the value -- one of those obligations at six-month intervals, you would take the market price. Correct?

DR. BABBEL: Yes.

MR. TAMBE: You don't get to pick your own price, about what those obligations are worth. Correct?

DR. BABBEL: That's correct.

MR. TAMBE: 26, I believe. You were asked some questions about the 65 basis point issue. Correct?

DR. BABBEL: Yes.

MR. TAMBE: Have you seen in Mr. Curry and Mr. Hasterok's report, or in the deposition testimony, any analysis of any variability in that 65 basis point number, other than their backward-looking variation for the four years between 2009 and 2013?

DR. BABBEL: No, I haven't.

MR. TAMBE: Do they tell you, whether after year four, after 2013, whether that's going to be a little bit higher or a little bit lower?

DR. BABBEL: They don't

MR. TAMBE: Okay. And is it your understanding, that what Mr. Curry and Mr. Hasterok have done, is simply accept the 65 basis points, as what they call their replacement yield?

DR. BABBEL: Yes.

MR. TAMBE: And do they project that into the future, 23 years?

DR. BABBEL: They do.

MR. TAMBE: Do they make any adjustments to it, when they provide their expert opinion?

DR. BABBEL: I didn't see any adjustments.

MR. TAMBE: So, what you've seen of the Curry and

Hasterok report, is an assumption, or an opinion, that at 65 basis points -- and that's the only number you've seen. Is that right?

MR. LAWRENCE: Can I object as leading? That's an argumentative and leading question. It's (indiscernible).

THE COURT: Try a different --

MR. TAMBE: Have you seen any data presented by Mr. Curry and Mr. Hasterok, other than backward-looking data, that shows any variation in the 65 basis points?

DR. BABBEL: No.

MR. TAMBE: You were asked a question about averaging. And you were asked -- well, you could look at that forward curve -- this is the Treasury forward curve, and isn't that the same thing as a straight line, maybe at 3 1/2 percent? Do you remember that?

DR. BABBEL: Yes.

MR. TAMBE: Why is that not the same thing?

DR. BABBEL: Because over any short time period, you don't earn that rate. You earn these rates that are -- the only ones you can secure, are the ones in the forward curve. And so, just as a mathematical exercise, as I understood the question, he wanted to say, well, could you come up with an average of all those forward rates. Yes, anyone can calculate an average. Do you ever earn that average over any period of time? No.

MR. TAMBE: And how would you discount the present value of that type of a mathematical average?

DR. BABBEL: What you typically do, if you're using a single rate, it's akin to what's called a yield to maturity. And what that tries to do, is average all the rates that you earn over the contract. And it weighs each rate that you're earning, over the period -- your Honor won't like this, but I have to say it.

THE COURT: I'm intrigued.

DR. BABBEL: You take each one of these rates, that you're actually earning, and depending on the size of the cash ability, you weigh them by what's called the dollar duration weighted average. You come up with (indiscernible). Okay? The dollar duration is a mathematical expression that takes into account how long the periods are, and how many dollars occurred each time, in present value terms. You can only do that, if you already know the price of the instrument. You wouldn't determine the price by discounting a rate like that, because you wouldn't know what rate to use. You figure out the value by using these rates, and then you can backward fill out -- well, if you want to convert it to a single rate. (Indiscernible). I promised you, you wouldn't like it, but it's explained in a couple of my books.

THE COURT: I like it fine.

MR. TAMBE: We've discussed using primarily

Treasuries. The fact that there's a spot rate and a forward rate. Right?

DR. BABBEL: Correct.

MR. TAMBE: The other eligible securities, under the RFA were commercial paper. Do you know that?

DR. BABBEL: Yes.

MR. TAMBE: Is there similar information available for commercial paper, in terms of spot rates and forward rates?

DR. BABBEL: There is.

MR. TAMBE: And how does a market discover that information?

DR. BABBEL: By looking at the transactions that are reported. You have screens that show all of this.

MR. TAMBE: And does the TSA need to transact, for the market to know what the price is?

DR. BABBEL: No.

MR. TAMBE: And does the TSA get to set its own price for commercial paper?

MR. LAWRENCE: Asked and answered, your Honor.

DR. BABBEL: No.

MR. TAMBE: Let's talk about agencies. Is there other agency spot curves and forward curves?

DR. BABBEL: You can construct them, yes.

MR. TAMBE: And does the existence of those spot curves and agency curves, depend on whether the TSA is

transacting?

DR. BABBEL: No.

MR. TAMBE: What does it depend on?

DR. BABBEL: It depends on the market participants, and who's transacting.

MR. TAMBE: And those transactions by market participants -- do they yield prices?

DR. BABBEL: They do.

MR. TAMBE: And by prices, I mean interest rates, when you're talking about money.

DR. BABBEL: Yes, they yield interest rates.

MR. TAMBE: And does the TSA get to say, I'm going to have a different rate, than what the market rate is.

DR. BABBEL: No.

MR. TAMBE: So, if you're investing in eligible securities, you take the rate that the market gives you.

DR. BABBEL: That's correct.

MR. LAWRENCE: Again, can we just try to get something other than a leading question, your Honor?

THE COURT: Not leading. Okay. No more leading questions.

MR. TAMBE: Can I just set it up to ask a leading question?

THE COURT: No.

MR. TAMBE: There was a discussion -- do you recall a

discussion about whether the TSA had any interest-rate uncertainty, when it was receiving 4.484 percent from Lehman?

DR. BABBEL: Yes.

MR. TAMBE: If, during the life of this contract, when the TSA was receiving 4.484 percent from Lehman, actual interest rates have been a lot higher. Would that be a good deal from the TSA's perspective?

MR. LAWRENCE: Objection, calls for speculation.

THE COURT: I'm going to allow it.

DR. BABBEL: TSA could have earned a lot more, had they taken the floating rate leg.

MR. TAMBE: Do you have a moment, your Honor?

THE COURT: Sure.

MR. TAMBE: Just a question about penalties. Do you recall the discussion that Mr. Lawrence asked you, whether there would be a penalty, if there was an early withdrawal from a CD?

DR. BABBEL: Yes.

MR. TAMBE: Is it your understanding that there would be a penalty, if there was an early termination of the swap?

DR. BABBEL: No.

MR. TAMBE: When a swap is terminated, of the type you described, could there be payments made by the defaulting party?

DR. BABBEL: Yes.

MR. TAMBE: Could there be payments made to the defaulting party?

DR. BABBEL: Yes.

MR. TAMBE: No further questions, your Honor.

THE COURT: All right.

MR. LAWRENCE: Just a couple of questions.

DR. BABBEL: Sure.

MR. LAWRENCE: I shouldn’t say a couple, because it’s more than two, but not too many.

THE COURT: Lawyers’ expert estimates of time are always wrong. That is an absolutely unassailable principle, you could teach in any of your classes.

MR. LAWRENCE: Right. Draw a forward curve on it, I’m sure. So you talked about -- is there a CP swap market?

DR. BABBEL: Commercial paper?

MR. LAWRENCE: Yeah.

DR. BABBEL: You can have swaps, based on commercial paper. Yes.

MR. LAWRENCE: And you can see these swap transactions get reported every day. Correct?

DR. BABBEL: They do.

MR. LAWRENCE: And in terms of Treasuries, I think we’ve talked about those transactions that are reported every day. Correct?

DR. BABBEL: Yes.

MR. LAWRENCE: And swaps on Treasuries are reported every day. Correct?

DR. BABBEL: Yes, in fact, every minute of the day.

MR. LAWRENCE: Now you indicated you could generate an agency-forward curve, but it's correct that there's no swap market for agencies. Correct?

DR. BABBEL: No swap market for agencies?

MR. LAWRENCE: Yeah.

DR. BABBEL: I don't believe that.

MR. LAWRENCE: Do you know one way or the other?

DR. BABBEL: It seems to me that that was part of the contract. One of the security packages that could be delivered, was based on agencies, and that's swapping it for a fixed rate obligation.

MR. LAWRENCE: Well, is there a hedge market for agencies, where I can go out and purchase agencies, vis-à-vis LIBOR?

DR. BABBEL: There's definitely a hedge market for agencies. We did it all the time. And if we messed up, we took big losses. Solomon took big losses.

MR. LAWRENCE: You messed up, because it's not the same type of relationship as to LIBOR, as CP is. Right?

DR. BABBEL: I'm not sure I understood the question. When you say it's not the same relation to LIBOR as commercial paper --

MR. LAWRENCE: There's an active CP, LIBOR swap market.

DR. BABBEL: Yes.

MR. LAWRENCE: And is it fair that there's not the same level of activity in the agency LIBOR swap market?

DR. BABBEL: I don't know if there's the same level of activity that's --

MR. LAWRENCE: You don't know?

DR. BABBEL: No.

MR. LAWRENCE: Okay. Now, under the TSA, RFA, if -- I think you described, if interest rates went way up, and TSA wanted to get out of the agreement to take advantage of floating rates -- you understand there would be a large termination payment due to Lehman for TSA to get out of that agreement. Right?

DR. BABBEL: I don't know. I haven't done that work.

MR. LAWRENCE: But you did review the agreement?

DR. BABBEL: Yes.

MR. LAWRENCE: And you understand, that typically, with respect to forward-purchase agreements, if somebody wants to get out, i.e., not perform their part, there's a termination payment due, depending upon -- it could be in the money or out of the money. Right?

DR. BABBEL: That's correct.

MR. LAWRENCE: And if interest rates have gone way

up, Lehman would have been in the money in the RFA. Correct?

DR. BABBEL: Someone would be in the money.

MR. LAWRENCE: And in terms of floating rates, let’s say TSA gets out of the RFA. They take care of the termination payment, because they’re the one getting out, and Lehman is the burden party. When they go in to take advantage of floating rates, then TSA would be taking on the interest-rate uncertainty. Correct?

DR. BABBEL: If TSA got out of the market?

MR. LAWRENCE: And got into floating rates -- tried to take advantage of floating rates.

DR. BABBEL: They would have interest-rate uncertainty.

MR. LAWRENCE: Thank you. I have nothing further.

MR. TAMBE: Just one question, your Honor. The record may not have been clear. You were asked questions about the agency swap market. Do you remember that, Dr. Babbel?

DR. BABBEL: Yes.

MR. TAMBE: You described an experience at Solomon. Do you recall that?

DR. BABBEL: Yes.

MR. TAMBE: Could you explain what you meant by your answer, sir?

DR. BABBEL: Solomon was trying to hedge their position in agencies, a huge position, and they got the hedge

ratio wrong. I could explain technically, exactly what happened, but the bottom line is, they lost a lot of money.

MR. TAMBE: To do the hedging with the agencies, did Solomon enter into the agency swap market?

DR. BABBEL: They did. They were using a ten-year Treasury, and swapping for agencies.

MR. TAMBE: The reason that Solomon lost money -- was that because the market was inefficient?

DR. BABBEL: No.

MR. TAMBE: It's because Solomon made a mistake in rising its hedge?

DR. BABBEL: They did. I teach it in my classes.

MR. TAMBE: Thank you, your Honor.

THE COURT: And just for the record, you said you were going to ask one question, and you asked five.

MR. TAMBE: I'm sorry, your Honor. [LAUGHTER]

THE COURT: Proving -- [LAUGHTER] And we're done with this question --

MR. LAWRENCE: Yes.

THE COURT: -- or however many you're actually going to ask?

MR. LAWRENCE: I have one document that I would like to show the witness.

MR. TAMBE: That would be beyond the scope of direct.

THE COURT: You both have been totally ignoring the

scope, the entire time. [LAUGHTER] So we'll conclude with Mr. Lawrence, perhaps ignoring the scope.

MR. LAWRENCE: This is TSA, Exhibit P. And this is a document from Lehman. It's dated 2008, and it -- I'm sorry. There you go. And it's talking about forward-purchase agreement with municipal issuers. Do you see that?

DR. BABBEL: Yes.

MR. LAWRENCE: And it talks about four purchase agreements, based on CP, Treasury and agency. Do you see that? Do you see the paragraph that's highlighted?

DR. BABBEL: Yes.

MR. LAWRENCE: And in that document, it says, there is no agency/LIBOR bias swap market. Do you see that?

DR. BABBEL: Yes.

MR. LAWRENCE: Do you have any reason to disagree?

DR. BABBEL: Yes. You said bias swap market, and it's basis.

MR. LAWRENCE: Basis, okay, I'm sorry. You got me. Do you have any reason to disagree with the Lehman statement, there is no agency LIBOR basis swap market?

DR. BABBEL: I don't have any reason to disagree with that. That doesn't mean there isn't the ability to do swaps with agencies, because we did them all the time.

MR. LAWRENCE: I have nothing else.

THE COURT: Okay. All right, Dr. Babbel, thank you

very much. You're excused.

DR. BABBEL: Thank you.

THE COURT: Did you folks want to keep going, or do you want a seven-minute break?

MR. LAWRENCE: I will say, your Honor, that we get our exercise, running to the (indiscernible).

THE COURT: Mr. Gruer, would you please stand up, and raise your right hand? Do you solemnly swear or affirm that all the testimony you are about to give before the Court, shall be the truth, the whole truth, and nothing but the truth? Please have a seat. Let us know, if at any time you would like to take a break, or if you need anything else to be comfortable.

MR. GRUER: Thank you.

MR. TAMBE: Good afternoon, Mr. Gruer.

MR. GRUER: Good afternoon.

MR. TAMBE: Would you introduce yourself to the Court please?

MR. GRUER: Excuse me?

MR. TAMBE: Please introduce yourself to the Court.

MR. GRUER: My name is Sam Gruer, and I'm here to testify on behalf of Lehman Brothers.

MR. TAMBE: Mr. Gruer, could you turn to tab 12 in your binder? It's debtor's Exhibit 12.

MR. GRUER: Okay.

MR. TAMBE: Could you describe for the Court what that is?

MR. GRUER: Sure, that is a summary of my career experience, my curriculum vitae, summarizing my first job in 1986, through today.

MR. TAMBE: And is that a document that accurately describes your work experience?

MR. GRUER: Yes, it does.

MR. TAMBE: Have you prepared a slide deck to assist the Court with your testimony today?

MR. GRUER: I have. It's a more condensed version of my CV.

MR. TAMBE: So turning to page one of that demonstrative, could you please describe for the Court, your work experience. And if you could highlight the relevant parts of your work experience, that are relevant to the opinions you are expressing here.

MR. GRUER: Sure, sure. Immediately upon graduating from MIT in 1986, I took a position as an analyst in the Municipal Finance Department at Goldman Sachs. My responsibilities primarily were analytic support for the bankers, insuring that transactions were structured in compliance with all applicable tax codes.

MR. TAMBE: No forward-purchase agreements in this part of your career?

MR. GRUER: No, I did not. My next position, starting in 1989, was with Morgan Stanley, also in the Municipal Finance Department, or Public Finance Department, as they called themselves at the time. Similar responsibilities to those at Goldman Sachs, albeit at a more senior level. It was during that time period that I first became aware of forward-purchase agreements, and began exploring their use for certain clients. But to the best of my recollection, I don't recall actually transacting during that time period in those.

MR. TAMBE: When did you first transact in the forward-purchase agreements?

MR. GRUER: While at Prudential Securities. At Prudential Securities, I had responsibility for the analytic group, within the Public Finance Department, but I was also the head of new products, within the Municipal Bond Department. And what that meant, was that any new product offered to our clients, be it our investing clients in the form of bond structures, or to our issuer clients, in the form of new structures, new investment strategies, at some point in time, came through me. It was during that responsibility that I first began using forward-purchase agreements. While at Prudential, we used those for our clients in the form of escrow float contracts, which was one of the original uses for the forward-purchase agreement. Prudential, at that time, was not a principal, so we acted as an agent, and sourced the

transactions to other dealers who were principals in the market. But my responsibilities not only included analyzing the appropriateness and the suitability of those products, but also making sure that they were done at fair market price. So valuations were something that I did regularly.

MR. TAMBE: Can we discuss your next job -- I guess that's J.P. Morgan, including Chemical Bank.

MR. GRUER: Correct. And I'll use J.P. Morgan as an amalgam, because they changed their name, quite a few times during the time period that I was there. But in 1994, I and many of my colleagues from Prudential, were recruited to what was then called Chemical Bank. And we were recruited primarily to start up a municipal derivatives operation from scratch. While Chemical was a big player at the time in the derivative space, they were not a player in the municipal derivative space. So we came on board to begin that business at Chemical. My specific responsibility during that time period, initially, was to develop the models and the methodology for offering forward-purchase agreements as principal to our clients. So in addition to looking from a market's perspective, and a marketing perspective, what type of clients we should approach, how we should go about getting business, it also involved on a day-to-day basis, working with our new products approval committee, to make sure that we check every box, to get authorization to proceed. And that included all the

disciplines that you would expect -- valuation, tax, market-risk, accounting, marketing, reputational risk, et cetera. So we ran the entire process through the new products' approval process. That took probably about six to nine months to get approval, and we started transacting from that point forward.

MR. TAMBE: And you were at J.P. Morgan, and its predecessor entities for about 12 years it looks like. Is that right?

MR. GRUER: That's correct. Just as a clarity point, I resigned from what was then called Chase, in early 2000, to accept a position at J.P. Morgan. Approximately six months after I got to J.P. Morgan, unbeknownst to me, J.P. Morgan and Chase announced that they were merging. And in the merge entity, I actually moved right back to the original seat that was still vacant, after I left six months earlier.

MR. TAMBE: During that 12-year period, is that when the tobacco securitizations took place?

MR. GRUER: Yes.

MR. TAMBE: And were you involved in any way, in any of the tobacco securitization RFA's or bond issuances?

MR. GRUER: I recall being aware of them, but to the best of my recollection, I never transacted in one of those. I may have explored and bid on several of them. I don't specifically recall, but I'm fairly certain that I did not transact in any of them.

MR. TAMBE: Were there certain dealers that were more prominent in that space, than J.P. Morgan?

MR. GRUER: It really varied. I'd say most of the dealers, in my experience, were equally spread out. There were some, that in a given period of months, might be more successful. And in another period of months, somebody else might be more successful. But I don't recall being aware that any particular dealer was more successful in that space.

MR. TAMBE: Just in terms of forward-purchase agreements, do you recognize that the RFA is a type of forward-purchase agreement?

MR. GRUER: Yes.

MR. TAMBE: Just in terms of FPA's then, a rough approximation of how many FPA transactions you were involved with, while at J.P. Morgan?

MR. GRUER: A lot. Typically, in a week, I would receive bids, and most of the transactions were done on a competitively bid basis, not on a negotiated basis, but not exclusively. I would receive anywhere from two, to as many as 15 bids a week -- week in and week out throughout the year, during that 12-year period. I would bid on most of them. Sometimes I'd be successful. Sometimes I wouldn't be successful. So in terms of actual transactions that I priced and participated in the bid process, several thousand; in terms of transactions, that I actually was successful, and was

awarded the transaction, and we actually moved to closing -- several hundred would be a floor. It might be significantly in excess of a thousand.

MR. TAMBE: And did you have a particular approach or methodology that you used in evaluating pricing, bidding on these?

MR. GRUER: Oh, absolutely, yes.

MR. TAMBE: And is that methodology that you used, while at J.P. Morgan, consistent with the methodology you've used to provide your opinions here today?

MR. GRUER: It is.

MR. TAMBE: If you could describe the rest of your career, after J.P. Morgan.

MR. GRUER: Sure. I left J.P. Morgan in 2006, to accept a position at Deutsche Bank. During my time period at Deutsche Bank, I was a director in their rate-structuring, and I had overall responsibility for marketing, within the Midwest region of derivative products. In 2008, I left Deutsche Bank, and started Cityview Capital Solutions, where I currently am.

MR. TAMBE: When did you start Cityview Capital Solutions?

MR. GRUER: I think the date of incorporation is October 15th of 2008. I don't know the exact date. It was December of 2008, when we actually opened the doors for business.

MR. TAMBE: And what kind of business have you been doing at Cityview, from 2008 to the present?

MR. GRUER: Advisory work within the municipal finance business -- my clients predominately are government entities, not unlike Washington TSA. They also include hospitals, universities. Basically, all sorts of entities that can borrow in the tax-exempt municipal bond market. I advised them, both on the debt-issuance process, and also with respect to the investment of bond proceeds, whether that be helping them source new investments, when bond transactions closed, or unwinding, restructuring, modifying, et cetera, existing agreements, that I may have had a role of putting in place, or may have predated me.

MR. TAMBE: Have you had any involvement with forward-purchase agreements, while at Cityview?

MR. GRUER: Yes, quite a bit.

MR. TAMBE: Putting this matter aside, could you generally describe what your engagements have been?

MR. GRUER: Sure. Starting in late 2008, or early 2009, in part because of the financial crisis, there were a lot of refinancings and a lot of bond restructurings that were going on. During the course of that time period, a lot of those refinancings, necessitated existing investment agreements, whether they be debt service reserve fund agreements, like the RFA in question here, or other debt-

service funds. They typically needed to be modified, restructured, or terminated, depending upon the particulars of the refinancing transaction. I advised and guided my clients on those types of transactions, interacting with the dealers extensively, during that time period.

MR. TAMBE: Did that work, that you just described, include valuation of those types of transactions?

MR. GRUER: Absolutely. Whether I'm taking my client out of a transaction, or putting my client into a transaction, first and foremost, is that they transact at fair market value. That's my responsibility to them, to make sure that they transact, after their market value, so, yes, absolutely.

MR. TAMBE: And did you do any evaluation work for clients, who were neither getting into a transaction or getting out of a transaction, but just wanted evaluation.

MR. GRUER: With respect to RFA's, no. With respect to interest-rate swaps, yes. Typically for quarterly filings -- some of my clients needed to get individual or independent evaluations, and I provide those.

MR. TAMBE: And what kind of methodology or market data, did you use at Cityview from 2008 to the present, to provide these services to your clients?

MR. GRUER: Not unlike the methodology that I outlined in my expert report. And that is, I would look at the structure of the transaction. I would look at the eligible

securities that were allowed to be delivered, and any other features that may be uniquely specific to a transaction, generate forward curves and value the transaction.

MR. TAMBE: In terms of the Lehman estate, have you represented clients, who were adverse to (indiscernible)?

MR. GRUER: Yes.

MR. TAMBE: Could you describe those engagements? Again, without breaching any confidentiality concerns you might have.

MR. GRUER: Sure, in one case, I was representing another municipal entity, who had two deck service reserve fund agreements in place with the Lehman Estate. And I was representing my client, which was a municipality in the U.S. on terminating two existing RFA's. That was done on a negotiated arm's length transaction basis. It never got to the mediation process, or to litigation. It was negotiated and settled.

MR. TAMBE: And what type of process or methodology did you use to provide those services to your municipal clients, facing the Lehman Estate?

MR. GRUER: The same.

MR. TAMBE: Turning to page two of the demonstrative, would you, without getting into the actual opinions, describe for the Court, what is the scope of the opinions that you've been asked to provide here?

MR. GRUER: Sure. I was asked to provide a valuation

of the RFA, as of March 25, 2009, using industry standard methodology. And also I was asked to respond and critique the reports submitted by Mr. Shapiro, Mr. Curry, and Mr. Hasterok.

MR. TAMBE: Were you told by Lehman, what valuation methodology to use?

MR. GRUER: No.

MR. TAMBE: Your Honor, we tender Mr. Gruer as an expert in the valuation of the RFA and the related opinions.

THE COURT: All right. Any objection?

MR. LAWRENCE: One question, if I may?

THE COURT: Sure.

MR. LAWRENCE: Do you consider yourself an expert in tobacco RFA's? Do you have a particular expertise in tobacco RFA's?

MR. GRUER: In tobacco RFA's, no -- in RFA's, absolutely.

MR. LAWRENCE: With that, I would object that there's no expertise in tobacco RFA's, which is the RFA at issue.

THE COURT: Objection overruled.

MR. TAMBE: Could you summarize briefly for the Court, the core opinions that you've reached in this case?

MR. GRUER: Sure. The first opinion is that, as of March 25, 2009, the valuation of the RFA was approximately $1.1 million, payable by TSA to Lehman Brothers. My second key opinion, is that the Schwab financial report is wrong;

specifically, if DO charges are to be included in the termination amount, Schwab Financial's credit charge substantially exceeds any commercially reasonable credit charge, that I have seen or calculated in my career. And lastly, the current Hasterok report is just inconsistent with industry and market practice and standards, and results in a valuation that is unsupportable and highly inflated.

MR. TAMBE: If you could turn to your expert report -- it's tab 139 in the binder. Is what's behind debtor's Exhibit 139, is that the expert report you submitted in this case?

MR. GRUER: Yes, it is.

MR. TAMBE: And you have had an opportunity to review that report before today. Correct, sir?

MR. GRUER: Yes, I have.

MR. TAMBE: Are there any edits or amendments you wish to make to this report?

MR. GRUER: There was just one typo that came out --

MR. TAMBE: Could you point that out please?

MR. GRUER: -- in deposition, in paragraph 67, on the third line, the number 20.3 in the middle of the line, should be replaced with 16.9, which is the same number on the last line of the paragraph.

MR. TAMBE: With that one change, do you adopt this expert report, as your direct testimony in this case?

MR. GRUER: Yes, I do.

MR. TAMBE: Let's discuss some of the opinions you outlined for the Court a moment ago. And let's start with -- even before we look at any documents, what's your approach, when you're asked to value a forward-purchase agreement?

MR. GRUER: The first thing I would do, is I would look at the contract or term sheet, and I would look at the tenor of the transaction, the eligible securities that could be delivered, the notional amount, or the principal amount of the agreement. Once I would look at the eligible securities, I would determine what is the cheapest to deliver.

MR. TAMBE: Why is that important?

MR. GRUER: The type of transaction, that an RFA is, is one in which a guaranteed fixed rate of interest is guaranteed by -- typically the dealer, to a client such as Washington TSA, in exchange for having the right to deliver securities on a specified scheduled date of bids. So, because a dealer, like Lehman Brothers in this case, was guaranteeing a fixed rate, each time it came time to deliver securities, they would look at the market, and whichever securities that qualified under the agreement that could be delivered, were trading at the highest yield, or were the cheapest to purchase, it would be in the economic interest of the dealer to deliver those particular securities. So we would always look to, what is the cheapest to deliver, because that was the fundamental

driver of the value of the agreement.

MR. TAMBE: And what would you do next?

MR. GRUER: Once I determined which curve, or which set of securities is the cheapest to deliver, I would look at the yield curve for those securities, and use that to develop a forward curve, using industry-standard methodology and practices, to generate the forward rates, over the life of the agreement. And lastly, I would take those forward rates, and determine the cash flows associated with those floating rates, compare them to the cash flows generated by the fixed-rate guarantee under the agreement, take the difference between those two cash flows, and discount them to present value.

MR. TAMBE: Is it your understanding, that during the life of this deal, from 2002 until 2009, that Lehman delivered the cheapest of delivered securities, or did they do something else?

MR. GRUER: I believe they would have delivered the cheapest to deliver, but I haven’t done any independent confirmation, as to what they delivered, and what else -- what the pricing was.

MR. TAMBE: Is it your understanding of the contract, that Lehman always had the right to deliver the cheapest to deliver?

MR. GRUER: Yes.

MR. TAMBE: Turning back to the demonstrative, you

said, once you identified the eligible securities, you would get some market information. Is that right?

MR. GRUER: That's correct.

MR. TAMBE: What market information did you get in this case?

MR. GRUER: In this case, if you turn to page six of the slides, what I looked at is the yield curves for each class of eligible securities, under the agreements. And if you remember, under this agreement, there were three broad classes of investment securities, that Lehman was able to deliver. Broadly defined, they were Treasury securities, commercial paper, that met certain criteria, and agency securities. And by agency securities, we're referring to securities such as Fannie Mae, Freddie Mac, Federal Home Loan Bank, those types of securities. I looked at the yield curve, as of March 25, 2009, for each of those securities, and on this chart here, I plot out the yield for those securities for various maturities, out to 30 years.

MR. TAMBE: And those curves, that you see on slide 6, also appear in your expert report. Is that correct?

MR. GRUER: That is correct.

THE COURT: Mr. Gruer, excuse me, these are forward curves, not spot curves?

MR. GRUER: No, these are spot.

THE COURT: These are spot.

MR. GRUER: They're actually yield curves. They're not actually derived from forward rates, using zero coupon rates, but they're analogous to what was described previously as spot.

THE COURT: But it says it's a yield curve, but it's not a forward curve, it's a spot curve?

MR. GRUER: Correct.

THE COURT: Okay.

MR. TAMBE: We'll come back to spot curves and forward curves. Once you've gone through your exercise of working with spot curves and forward curves, calculating the cash flow that you just described, what else do you do, after you've done that valuation?

MR. GRUER: In terms of valuing the agreement, at that point, once you discount those to present value, the only other adjustment in this case, would be the 7.7B (indiscernible).

MR. TAMBE: Is that what's set out in your expert report, and on slide seven?

MR. GRUER: That's correct.

MR. TAMBE: So let's just set the 7.7B amount to the side for the moment, and let's get back to the cash flow discussion we were having.

MR. GRUER: Sure.

MR. TAMBE: When you looked at the spot curves on

slide six, what conclusion, if any, did you draw about, what were the cheapest to deliver securities over the remaining life of this contract?

MR. GRUER: What I concluded was that agency securities were the cheapest to deliver, and just pictorially or visually, if you look at that, you could see that the green line is substantially higher than either the red or the blue line. So those were the highest yielding securities, that were eligible to be delivered.

MR. TAMBE: And the data that appears on page six -- you told us those are yield curves -- what is your understanding of what that is based on?

MR. GRUER: Those are based on actual transactions, where 30-year agency paper traded on that date, where 20-year agency paper, or Treasury bills or Treasury notes, or bonds, you know, traded during that time period, as of March 25, 2009. So they represent actual market-clearing transactions, for each of the data points, that are represented by a dot on the line. And then those lines are just simply interpolated in between.

MR. TAMBE: Now in terms of just the size of each of those markets, do you have an understanding, based on your experience in the market? Could you describe the size of the liquidity of those markets?

MR. GRUER: Very liquid -- billions, if not trillions of dollars traded on that date.

THE COURT: Can I interrupt again? Can you connect the dots for me, between the fact that the green line represents the highest yields, and the conclusion that those were the cheapest to deliver?

MR. GRUER: Sure.

THE COURT: The Y axis is the yield, right?

MR. GRUER: The Y axis is the yield.

THE COURT: And that's what you're focusing me on, right?

MR. GRUER: And the X axis, correct.

THE COURT: So connect those two dots, if you would.

MR. GRUER: Sure. If I look at those over virtually all data points, except for the very short end of the curve, the agency securities for the same maturity, yield higher --

THE COURT: Right.

MR. GRUER: -- than either swapped commercial paper or Treasury securities.

THE COURT: I understand that. And what makes that fact, equal, that they are the cheapest to deliver?

MR. GRUER: Oh, because they're the highest yielding. One is the converse of the other. The highest yielding and the cheapest --

THE COURT: Okay, that's what I wanted --

MR. GRUER: is sort of the inverse -- I'm sorry.

THE COURT: -- to hear in your words.

MR. GRUER: Yeah.

THE COURT: Okay. So the highest yielding are the cheapest cost.

MR. GRUER: Correct.

MR. TAMBE: Now let's move up to cash flow analysis. Because you start with those types of curves, and you move forward. Let's go to slide eight, because I think you now start talking about in your report, about Schwab Financial's valuation, correct?

MR. GRUER: Sure.

MR. TAMBE: The valuation methodology you described -- the various steps you follow, are the steps different -- the ones you described, different from the ones followed by Schwab Financial?

MR. GRUER: Initially, they're the same, and then we differ significantly.

MR. TAMBE: What is your understanding of the building blocks of the Schwab Financial Group's analysis?

MR. GRUER: Well, from reading the report written by Schwab Financial, they take a similar approach to the one that I took, and that is, they use the concept of forward rates and determine the floating rate cash flows, compare those against the fixed leg, and discount those to present value. They use different assumptions, and they also believe that commercial paper was the cheapest to deliver; whereas, I believe agency

securities were the cheapest to deliver. Where we differ more significantly, is that they then took another step, and that is, they adjusted their floating leg by other charges, including a credit charge, which is beyond orders of magnitude beyond anything that I've seen for these types of agreements, or other types of agreements, over the course of my career.

MR. TAMBE: One of the things you talk about in your expert report, and we'll skip forward a little bit in the slides and come back, is you try to isolate the effect of the credit charge, from other parts of the calculation. Do you recall that?

MR. GRUER: Yes, I did. And in fact, I demonstrate that, I believe it is on slide 11, and then going into slide 12.

MR. TAMBE: Let's start with slide 11. Why don't you explain how you reached the conclusions that you reached on slides 11 and 12 in your expert report.

MR. GRUER: Sure. Just backing up a little bit, one of the first things I did, after reading Schwab Financial's report, is I attempted to replicate their calculations, without opining on any of their assumptions or opinions, just to see if I could simply verify it mathematically and computationally. And I was able to. And what that did, is that gave me comfort that I understood the approach that they took. And so using their LIBOR plus 66.6 basis points, spread assumption, I was

able to get within a very close and comfortable band of valuation, that they came up with. But when they then attempted to make an adjustment for a hypothetical credit charge, that the dealer would charge, that's where I was no longer able to either agree with or replicate their calculation. Calculating their credit charge, is a multi-part analysis, separate, and in addition to the valuation. And they took only one of the components that is used in that valuation, or in that calculation, I should say. And then it took it and applied it erroneously.

MR. TAMBE: And what's that component? The one component they used, and in your opinion, applied --

MR. GRUER: They used the bond spread. They compared where Washington TSA's bonds traded on March 25, 2009, against a municipal benchmark index, and came up with a credit spread of 429 basis points. Rather than using that 429 basis points as one of the components, that goes into calculating a credit charge, they just simply shifted the yield curve downward by 429 basis points, resulting in negative rates, virtually over the entire life of the transaction, and again, inconsistent with how any practitioner in the industry would calculate a credit charge, using that same 429 basis points, and using that same LIBOR plus 66 valuation methodology.

MR. TAMBE: And did you -- using the same LIBOR, plus 66 basis point methodology, and using the same bond spread,

exactly the same bond spread, as Schwab Financial Group, did you conduct a credit charge analysis, the way you had always done in the industry?

MR. GRUER: I did, and again, without endorsing any of Schwab Financial's assumptions, but just simply using them as a mathematical exercise, and only adjusting the methodology for calculating the credit charge, I calculated a credit charge of approximately $1.3 million, or roughly 17 basis points running, which compared to their credit charge of 429 basis points running, or $32.4 million present value. That $32.4 million credit charge, represents virtually the entirety, or approximately 85 percent of the valuation that they calculated.

MR. TAMBE: And have you shown that graphically on slide 13?

MR. GRUER: Yeah, on slide 12, I lay out all the components that go into the pricing in a tabular form. And as you can see, I try to match all the calculations. The first column and the second column are identical, by design, with the credit charge adjustment, being the only one that's different. The one on the right, being the methodology that is industry standard. And the methodology on the left, being the methodology applied by Schwab Financial. So the $38 million claim, if the proper credit charge was used, would be reduced to $7.4 million. And then on page 13, it's the exact same data, but just showing pictorially, whereas the box on the

left, the area colored with red, represents Schwab Financial’s credit charge. And you can see there, how disproportionate it is to the overall value of the transaction. And the box on the right, shows the adjusted calculation.

MR. TAMBE: You’ve mentioned industry standard methodology a couple of times. What methodology or tool did you use to calculate the credit charge? Again, starting with Schwab Financial’s assumptions.

MR. GRUER: Sure. Using Schwab Financial’s assumptions, with respect to principal amount, tenor amount, spread to LIBOR for the floating leg, I created a hypothetical swap in Bloomberg, using Bloomberg’s swap analytics. And within Bloomberg’s swap analytics, there’s a function called CVA, which mirrors the same type of calculations that dealers do on the desks, day in and day out, and calculated a roughly $1.2 million credit charge, using their 429 basis point credit spread.

MR. TAMBE: Do you understand, that in the Schwab Financial Group’s report, the 429 basis point spread, is the spread that’s used by them to describe the credit risk of the Washington TSA. Is that your understanding?

MR. GRUER: That is my understanding.

MR. TAMBE: Did you accept that, as one of the inputs into the model that you ran?

MR. GRUER: Yes, I used that as an input,

representing that it's not a credit charge for the RFA, but simply, you know, one of the components -- the bond credit risk.

MR. TAMBE: So why is your number so different, if you start with all of their assumptions and use their bond spread?

MR. GRUER: Let me back up a little bit, and describe what a credit charge typically is. When a dealer, such as Lehman, or anyone else, active in the market, enters into a transaction, what they're concerned about is, their counterparty not being able to perform under the obligation. At the same time, the markets, after a transaction is executed, is going to fluctuate. So at some points in time, the agreement may be in the money, and at other points in time, the agreement may be out of the money. If a client's inability to perform under the agreement, coincides with the time in which the agreement is out of the money to the dealer, that represents a credit loss to the dealer. And so what they will typically do is set what they call a credit charge, which typically in the municipal space, represents a reserve, that may be paid away to another area within the bank. But from the dealer's perspective, who is actually putting on the trade, represent real dollars, out of the transaction to protect themselves against that potential outcome.

MR. TAMBE: And you used something called the

Bloomberg -- you used a Bloomberg calculator. Is that right?

MR. GRUER: That's correct.

MR. TAMBE: And you have an understanding of how that works. Correct?

MR. GRUER: That's correct. I used a similar methodology to the one that Bloomberg uses, during my time period at J.P. Morgan, and all the various entities, as well as at Deutsche Bank. While at Deutsche Bank, I wasn't trading in (indiscernible). It was the same methodology that was used for calculating credit charges for interest-rate swaps.

THE COURT: Can I just stop and ask a question? Does the credit charge that you're applying, does that take account of the particular aspects of this tobacco risk, meaning that there might be a mandatory cleanup call, as well as, what I'll call the general tobacco credit risk? I might not have asked that exactly right.

MR. GRUER: It definitely factors in the tobacco credit risk into that. It does not factor in the cleanup call. And quite frankly, in 2009, given where these bonds were trading, they were trading at yields in excess of ten percent in a relatively low muni interest-rate environment. Based on that, I don't believe there was any market concern, that there would be a cleanup call. If you recall, the cleanup call, was a situation, in which, if tobacco revenues came in much faster than projected, there might be excess monies to redeem all the

bonds, and then clean everything up. Based on the credit spread of 400 plus basis points, I don't think that there was a large scale -- a wide belief, that there would be excess cash flows coming in.

THE COURT: Thank you.

MR. TAMBE: If you could just describe that connection. Why do you equate the higher interest rate and tobacco bonds, with the conclusion, that there's less revenues coming in?

MR. GRUER: Because the 429 basis point credit spread, was a relatively wide credit spread. And the market implies a fairly high probability of default. A bond that is probably not going to make it to final maturity

MR. TAMBE: And there's a likelihood of default, because -- for what reason would there be a default?

MR. GRUER: Because tobacco revenues would come in slower than projected. If you remember, the fundamental credit of the underlying bond related, is just simply a strip of the TSA cash flows.

MR. TAMBE: Now in the work you did, in reviewing the Schwab Financial Group's report, did you find any schedule of cash flows, that the Schwab Financial Group itself had prepared?

MR. GRUER: No, I did not.

MR. TAMBE: Let's go back for a moment to slide 12.

Just for the sake of clarity, let's just walk through those items. Item number one, mid-market -- you have the same number in both. What assumptions of Schwab Financial Group, if any, are you accepting in that line?

MR. GRUER: The methodology, that they use the forward curve to generate the floating rate and then discount to present value, using the LIBOR curve, I accept. The LIBOR plus 66 basis point spread, I do not, but again, for purposes of just simply computational verification, I used it as is.

MR. TAMBE: And you accept -- skipping to the line, the section 7.7B amount -- do you see that?

MR. GRUER: Yep.

MR. TAMBE: Now you accept it for purposes of this chart. Do you accept it as part of your opinion?

MR. GRUER: I do not.

MR. TAMBE: You have a recent opinion, after the 7.7B amount that's different than the Schwab Financial Group amount. Correct?

MR. GRUER: That's correct.

MR. TAMBE: There's a dealer profit charge of 1.8 million roughly. Do you see that?

MR. GRUER: I do.

MR. TAMBE: And again, for purposes of this analysis, you accept that. Correct?

MR. GRUER: Correct.

MR. TAMBE: Let's now go and pick up the 7.7B issue. Okay? Your opinion in your report is, there should be a different 7.7B, correct?

MR. GRUER: That's correct.

MR. TAMBE: And turning to slide 7, could you walk the Court through how you did your analysis, and what conclusion you reached?

MR. GRUER: Sure. Under the agreement, if Lehman Brothers fails to deliver securities, there are very clearly defined steps that must be taken. And so my analysis just assumes that those steps were taken. Specifically, it says that, if on December 1, 2008, Lehman Brothers did not deliver securities, then the trustee was directed to invest those in overnight securities, for the first five business days, or first week. So what I did is, I assumed that that $45 million of principal amount, would be invested from December 1st to December 8th, roughly one week. And that it would earn the fed funds rate. And I used the fed funds rate as a proxy for overnight securities or overnight liquidity, and at the 27.3 basis points for that week, $2,400 odd dollars of interest, would have been earned. If by the fifth business day, or December 8, 2008, Lehman Brothers does not remedy the failure to deliver, then the trustee is instructed to purchase eligible securities with the longest maturity date, but not beyond the next scheduled payment date. In this case, the next scheduled

payment date was June 1, 2009. So I assumed that, they would have invested from December 8th to June 1, 2009, so a period of one week short of six months in eligible securities. And I went back and looked at asset-backed commercial paper; and specifically, I looked at the Bloomberg asset-backed commercial paper index, which appeared to meet the definition of eligible securities. And at that time, roughly on December 8th, that index was yielding 3.085 percent. So it was not unreasonable to believe that on December 8th, they could have purchased six-month commercial paper -- asset-backed commercial paper, yielding 3.085 percent. Looking at the earnings at that rate, but only looking at the earnings until March 25th, not all the way out to June 1st, I calculated additional earnings of 417,000 and change, for total earnings of $419,932. Had Lehman not failed to deliver the securities, TSA would have earned 4.484 percent, or $646,000 of interest earnings. So the difference between those two numbers -- the 419 and the 646, represents an additional loss to TSA of $226,000.

MR. TAMBE: At the top of the box, the (indiscernible) seven-day entry, where you have a rate of 3.085 percent, that's not in fact what the TSA did. Correct?

MR. GRUER: No.

MR. TAMBE: But that's something you believe they could have done.

MR. GRUER: I believe they could have done. I

understand that they did something very different.

MR. TAMBE: And the proxy used for commercial paper, was commercial paper index. Correct?

MR. GRUER: The asset-backed commercial paper index that Bloomberg publishes.

MR. TAMBE: Is that an index, that the TSA could have invested in?

MR. GRUER: The index, no, but the types of securities that comprise that index, yes. (Indiscernible) highest rated asset-backed commercial paper, and it has the plus that was required.

MR. TAMBE: Turning from the Schwab Financial Group report, to the Curry, Hasterok report, what is your criticism of their methodology -- the replacement yield methodology?

MR. GRUER: Well, in essence, they completely rejected what's standard practice in the industry and in markets. And they took a look at the time period from December 1, 2008, to March 25, 2009, and looked at TSA's actual earnings. And again, if I recall correctly, TSA's investment during that time period was in a money market fund. So TSA didn't, at least from my perspective, didn't even appear to maximize yield. They just decided that they wanted overnight liquidity, period. And they looked at the time period, until March 25th, and then calculated that TSA earned 65 basis points. So they just simply said, well let's assume that for

the next 23 years.

MR. TAMBE: Did you see any analysis in the Curry and Hasterok report, that the 65 basis point number would actually vary over those 23 years?

MR. GRUER: No, I did not.

MR. TAMBE: Did you see any such assumption or modeling in their spreadsheets?

MR. GRUER: No.

MR. TAMBE: So they assumed, for purposes of their calculations, that it would just be 65 basis points all the way?

MR. LAWRENCE: Again, I would object as leading.

THE COURT: Okay, ask it in a non-leading way, please.

MR. TAMBE: Yeah. So, is it your understanding, Mr. Gruer, that in their work papers--what is your understanding, Mr. Gruer, of what assumption, if any, Mr. Curry and Mr. Hasterok made with respect to the 65 basis point rate in their work papers?

MR. GRUER: Well, when I looked at the spreadsheets that they provided, that 65 basis points was constant throughout the 23 year life of the agreement. I didn’t see any variability in it, nor did I see any discussion of how there could be some variability around that number.

MR. TAMBE: Pull up (indiscernible) Index 43, please.

It's not in the book, your Honor. It's on the Excel Spreadsheets.

THE COURT: Okay.

MR. TAMBE: And if you could on the viewer to 100 percent and tab over on Exhibit 43. You can just scroll over. Or Steve Mullaney can help you get there. All right, stop right there. If you look at Column L, sir, do you see that on the screen?

MR. GRUER: Yes.

MR. TAMBE: Let's move over. Sorry. Replacement Rate, Column I. Do you see that column, sir?

MR. GRUER: Yes, I do.

MR. TAMBE: And can you tell the court what numbers you see in that column starting on Line 19 all the way down to the end of that column?

MR. GRUER: What's on the screen, I see 65 basis points...

MR. TAMBE: And the screen is now being scrolled.

MR. GRUER: Okay.

MR. TAMBE: Now we're at the bottom of that column. Do you see that?

MR. GRUER: Yes.

MR. TAMBE: Do you see any number other than 65 basis points in the Replacement Rate column, sir?

MR. GRUER: I don't see anything yet. I think there's

a lag. But no, I don't.

MR. TAMBE: And that's not your spreadsheet, sir, that's Mr... Whose spreadsheet is that?

MR. GRUER: That's Curry and Hasterok's.

MR. TAMBE: You described a few minutes ago that it's your understanding from the Curry and Hasterok report that looked at an average over a period of time four months to calculate that 65 basis points, is that right?

MR. GRUER: That's correct.

MR. TAMBE: Did you analyze--do you have any view as a participant in the market the trades and values for purchase agreements--whether that's an accepted methodology for determining rates in the future?

MR. GRUER: It's not and it's completely inconsistent with market practice conventions and standards.

MR. TAMBE: Is that a type of analysis that you have ever done to price or trade any FPAs?

MR. GRUER: No.

MR. TAMBE: Are you aware of anyone in any of the banks that you work with that you're aware of having done that?

MR. GRUER: No, I'm not.

MR. TAMBE: Did you know Mr. Curry and Mr. Hasterok in the market?

MR. GRUER: I knew Mr. Hasterok. Mr. Curry I believe I met once or twice many, many years ago.

MR. TAMBE: And in your dealings with Mr. Hasterok did you ever have Mr. Hasterok tell you "This is the way I'm pricing core purchase agreements?

MR. GRUER: No, he did not.

MR. TAMBE: While we're on that topic in the market, Mr. Casey Rogers, do you know that name?

MR. GRUER: I do.

MR. TAMBE: How do you know that name?

MR. GRUER: He runs the Municipal Derivatives desk at Wells Fargo and I deal with him from time to time over the course of (indiscernible) on behalf of my clients.

MR. TAMBE: And at the time in question was Mr. Rogers at Wachovia?

MR. GRUER: Yes.

MR. TAMBE: You've seen materials in discovery in this case, including an email from Mr. Rogers, correct?

MR. GRUER: That's correct.

MR. TAMBE: And you understood that communication to be an indicative quote from Wachovia sent by Mr. Rogers, correct?

MR. GRUER: Correct.

MR. TAMBE: And that places a value on the transaction of a certain amount, correct?

MR. GRUER: Correct.

MR. TAMBE: Do you have an understanding of the

methodology used by Wachovia in the FPA market?

MR. GRUER: Yes, I do.

MR. TAMBE: What is that understanding?

MR. GRUER: It's very consistent with the methodology that I use.

MR. LAWRENCE: Excuse me.

THE COURT: Yes, Mr. Lawrence?

MR. LAWRENCE: I think he's gotten more foundation relative to this particular period, March 2009, as to the foundation, as to--

THE COURT: Okay, that's fair.

MR. TAMBE: Putting aside the period--I'll narrow down the period. Generally, over any period of time do you have an understanding of the Wachovia methodology or Wells Fargo methodology?

MR. GRUER: Yes, I do.

MR. TAMBE: And over what period of time do you have that knowledge?

MR. GRUER: During the course of my employee's engagements at Citiview. So, I don't know that in March 25, 2009 or prior to that I had dealings with Casey--with Rogers with respect to FPAs but during the time period thereafter through today I continue to interact with him or his staff.

MR. TAMBE: Both (indiscernible)?

MR. GRUER: Yes.

MR. TAMBE: And what is your understanding of what the methodology is?

THE COURT: Yes?

MR. LAWRENCE: Object. It's calling for speculation and also hearsay to the extent he's trying to prove what, in fact, that indicative values--this witness has never seen or identified--

THE COURT: Well, I think that I partially agree with you but partially do not. Since this is about what's standard practice--and each of the gentlemen who has spoken is talking about their view of what--the way it's done in the market. So to the extent that each of them has an understanding of the way some other market participant conducts his or her business, I think it comes into that extent, okay?

MR. TAMBE: So, what is your understanding in the time period you've identified of Wachovia's approach to valuing these types of FPAs?

MR. GRUER: My understanding, and this is based on specific dialogue and actually, frankly, asking him specifically that they not only use forward curves for generating the values of the FPAs there but also that they use agency security constructed curves for agency deliverable FPAs.

MR. LAWRENCE: I'm going to move to strike for two reasons.

THE COURT: All right. Yes, one is that it's a

recitation of what he was told.

MR. LAWRENCE: Right. (indiscernible) something not disclosed (indiscernible)...nor in a deposition.

THE COURT: All right, I think that's fair. Let's move on.

MR. TAMBE: Did you in your practice ever use agencies to price or trade FPAs?

MR. GRUER: Yes, I have.

MR. TAMBE: Could you describe that for the Court?

MR. GRUER: Over the course of my career at J.P. Morgan I use securities-based yield curves to generate forward rates.

MR. TAMBE: And were any of the securities that you used to generate those forward rates agency securities?

MR. GRUER: They were combinations of agencies and/or treasuries.

MR. TAMBE: Did you enter into any transactions involving the delivery of agency securities?

MR. GRUER: Yes.

MR. TAMBE: Were you able to hedge J.P. Morgan's or your employer's risk with respect to those commitments?

MR. GRUER: I personally was not involved in the hedging of it. That was done by some of my colleagues. But I have no reason to believe that they didn't hedge and hedge appropriately.

MR. LAWRENCE: I move to strike. Once he says he doesn't know, anything after that.

THE COURT: Sustained.

MR. TAMBE: Is it your understanding that J.P. Morgan like other dealers routinely hedged its positions?

MR. GRUER: Yes.

MR. TAMBE: Would you have expected them, being there for 12 years, to have hedged this risk?

MR. LAWRENCE: Same thing. Same...

THE COURT: No, I think you've got to give him--now, Mr. Lawrence, I think you have to give him a little latitude. I mean, we have someone like the others who have vast experience in the markets. So general statements of understanding I think are fair.

MR. TAMBE: Could you just read back my last question?

CLERK: (indiscernible)

MR. GRUER: Yes, I would have.

MR. TAMBE: Going back to the Curry Hasterok report, did you examine longer historical periods than Mr. Curry and Mr. Hasterok have?

MR. GRUER: Yes, I did.

MR. TAMBE: Okay. And with respect to what instruments did you do that?

MR. GRUER: I did it both with respect to the actual

commercial paper that TSA purchased as well as treasury bills. And I did it not so much to say that the three-month window that Mr. Curry and Hasterok used was wrong and that a different window was the right window to use--but more so just to point out that by arbitrarily picking a window, you can skew the analysis to obtain virtually any result you want.

MR. TAMBE: And do you show some of that in your demonstratives?

MR. GRUER: I do. I think it's Slide 15.

MR. TAMBE: Can you describe--is this an analysis that appears in your report?

MR. GRUER: Yes, it is.

MR. TAMBE: Can you describe for the Court what this is?

MR. GRUER: Sure. What I did is--I would've liked to have gone back 23 years over the life of the agreement for First American Prime Obligation historic returns but--

MR. TAMBE: Why that? Why are you looking at First American Prime Obligations?

MR. GRUER: Oh, because that's the actual security that--or money market fund that they purchased.

MR. TAMBE: Okay, and what did you do with that?

MR. GRUER: I looked at the data for as far back as I was able to obtain data--and this was obtained through Bloomberg--and plotted it going back to January of 1996. So, a

time period of, roughly, 13 years. And during that time period it averaged, approximately, 3-1/2 percent as shown by the red line and there were time periods in which it was yielding in excess of 6 and time periods where it was yielding significantly below 1 percent, primarily to the bottom right corner. It is the bottom right corner of that graph that Mr. Curry and Mr. Hasterok chose to project forward--but just showing that if you looked at a different time window, you could've had a time period where you averaged in excess of 6 percent or a time period of 3-1/2 percent or really any number that you wanted. You could pick a time window that was here.

MR. TAMBE: Is that how in your experience the market values (indiscernible) obligations?

MR. GRUER: No, not at all. Not at all. They value it using forward curves.

MR. TAMBE: You also did a similar analysis in your expert report, Exhibit 139, with respect to treasury bills. Could you describe that?

MR. GRUER: I'm just trying to find that graph. I did a similar analysis for treasury bills, for six-month treasury bills, which clearly were a permitted investment. I remember the First American Prime Obligation wasn't a permitted investment under the RFA, but six-month treasury bills were. And for that also I was able to get 23 years' worth of historical data.

MR. TAMBE: Is there a particular paragraph in your report that you're--

MR. GRUER: I'm looking at Paragraph 93 in my report. I'm sorry?

MR. TAMBE: 93?

MR. GRUER: 93.

MR. TAMBE: And if you just describe what data you looked at and what conclusions you drew?

MR. GRUER: I used a six--looked at the six-month treasury bill index published by Bloomberg and I used that for the 23-year period going backwards from March 25, 2009. And during that 23-year window, T-bills averaged 4.66 percent. So, again, not endorsing the Curry Hasterok methodology but just simply demonstrating that by arbitrarily picking a window you can really cherry-pick any result you'd like.

MR. TAMBE: (indiscernible) You talked a few minutes ago about Mr. Casey Rogers. Do you remember that?

MR. GRUER: Yes, I do.

MR. TAMBE: In your dealings in the market did you ever come across Mr. Shapiro?

MR. GRUER: Quite a bit.

MR. TAMBE: Okay. Can you describe your dealings with Mr. Shapiro?

MR. GRUER: Sure. Generally I was sitting on opposite sides of the table with Mr. Shapiro. Most of my dealings were

when I was either at J.P. Morgan or Deutsche Bank on the swaps or derivatives desk and he was as an advisor to some of our counterparties and clients.

MR. TAMBE: And in your transactions where Mr. Shapiro was sitting across the table from you, did any of those involve credit charges imposed by the dealer that you were working for?

MR. GRUER: Oh, absolutely, absolutely.

MR. TAMBE: And did you recall any interactions with Mr. Shapiro about credit charges in those settings?

MR. GRUER: Yes.

MR. TAMBE: And what do you recall?

MR. GRUER: Well, I would suggest a credit charge. Generally, we would make sure we tied out on midmarket for whatever the relevant transaction is and we would then, for lack of a better way of putting it, haggle over the adjustments to mid. And one of those components was profit, one of those components was hedging cost, one of those components was credit charge.

MR. TAMBE: And did Mr. Shapiro in any of those settings suggest to you that you should simply take his client's bond risk and include it as a deduction against the transaction?

MR. GRUER: I wish he did. I would've made a whole lot more money for my firm if he did that.

MR. TAMBE: No further questions...

THE COURT: Okay. All right, we're getting towards the end. So let's take another very short break. Mr. Gruer, you remain under oath. Please do not speak to anybody about your testimony or be in anyone's presence while they're talking about your testimony or the case.

MR. GRUER: Okay.

THE COURT: We'll resume in about nine minutes. How long do you think you have?

MR. LAWRENCE: A half hour, 45 minutes.

THE COURT: Okay. All right.

MR. LAWRENCE: Of course, remember your...

THE COURT: Remember my what?

MR. LAWRENCE: Your words about lawyers.

THE COURT: Yes, exactly right.

MR. LAWRENCE: (indiscernible)

THE COURT: Yes, please do. All right, here we go, home stretch.

MR. LAWRENCE: Absolutely.

THE COURT: I hope your clients are buying you a nice dinner tonight.

MR. LAWRENCE: They're a public entity, they can't do that.

THE COURT: That's right. Then you should buy them a nice dinner.

MR. LAWRENCE: And they can't accept that either.

THE COURT: I should know that because people get very upset with me because I don't accept even a cup of coffee. You're quite right. Well, I hope you all have dinner together.

MR. LAWRENCE: We will have a nice dinner together with our own bills, yes.

THE COURT: Separate checks.

MR. LAWRENCE: Yes. Good afternoon, Mr. Gruer.

MR. GRUER: Good afternoon.

MR. LAWRENCE: First, I would like to start with your expert report which is debtor's Exhibit 138. Do you have that? You can see (indiscernible). Either way, whatever is easiest for you.

MR. GRUER: Okay.

MR. LAWRENCE: You indicated that--in terms of the scope of the analysis performed, you stated in your report that you'd been asked by Jones Day to value the reserve fund between Washington CSA, Lehman and U.S. Bank using in your experience industry standard valuation methodology. Do you see that?

MR. GRUER: Yes, I do.

MR. LAWRENCE: Does that accurately describe what Jones Day told you to do?

MR. GRUER: I believe it does, yes.

MR. LAWRENCE: Okay. Now, we talked a little bit about your expertise, Obviously Mr. Tambe went through a lot of

your experience and especially with forward purchase agreements, but you don't have any particular expertise in tobacco RFAs, correct?

MR. GRUER: That's correct.

MR. LAWRENCE: And in your expert report you indicate in Paragraph 9 that you estimate that you'd been involved to date in derivate and bond transactions totaling, sorry, more than $30 billion, correct?

MR. GRUER: Yes.

MR. LAWRENCE: And zero dollars of that is related to tobacco RFAs, correct?

MR. GRUER: I believe that to be correct.

MR. LAWRENCE: Okay. And if we could go to Page 3 of the demonstrative. Now, what you did, you said is a midmarket valuation of the RFA, correct?

MR. GRUER: A valuation. I believe mid to be consistent with the valuation. Other adjustments may or may not be appropriate, but that's not what I was asked to opine upon.

MR. LAWRENCE: Just so we understand the playing field, when we talk about a midmarket valuation, that's simply looking at the deliverable aspect of the trade, right? Whether it's CP or agencies, the deliverable aspect of the trade?

MR. GRUER: Correct.

MR. LAWRENCE: And when you said you weren't asked originally to opine about other charges, those would be like,

the tobacco--sorry, the credit charges, profits, hedging costs, anything else, correct?

MR. GRUER: That's correct.

MR. LAWRENCE: And certainly in your experience in terms of the pricing of forward purchase agreements, in your experience, all of those get priced by looking starting with the midmarket valuation and then making adjustments based on credit charges, a profit--because the dealers want to earn a profit, and then covering their costs such as broker fees and hedging costs?

MR. GRUER: Can you repeat the question?

MR. LAWRENCE: I'm saying in your experience in the market in terms of pricing of an RFA and one that would... Let's talk about reserve fund RFAs, okay? That's as close as we can get to a tobacco RFA, right? You have some experience with reserve fund RFAs?

MR. GRUER: Yes, quite a bit.

MR. LAWRENCE: Okay. So in pricing reserve fund RFAs on a bid basis, typically a dealer would start with a midmarket valuation looking at the eligible securities that they could deliver under the bid package and then make adjustments for credit, for their costs they would have to incur in entering into the transaction, like broker fees, costs of hedging and, of course, they would like to make a profit. Is that fair?

MR. GRUER: Yes.

MR. LAWRENCE: But you weren't asked to do that. You were asked to just look at that first part, the midmarket valuation based on the eligible securities and the RFA, correct?

MR. GRUER: Correct.

MR. LAWRENCE: Okay. And just so I understand, you haven't gone into the RFA definition of termination amount? You've seen that I take it?

MR. GRUER: Yes, I have.

MR. LAWRENCE: Okay. And you see that in terms of the definition of termination amount, it's defined as a calculation of the burdened party. And you understand that TSA is the burdened party here, is that right?

MR. GRUER: Under the definition of termination amount, yes.

MR. LAWRENCE: Yes. And the definition requires a determination of TSA's total losses or gains. Do you understand that?

MR. GRUER: Yes, I do.

MR. LAWRENCE: Okay. But you didn't try to calculate TSA's total losses and gains, correct? Or gains, correct?

MR. GRUER: No, I attempted to determine the market value of the transaction.

MR. LAWRENCE: Using a midmarket valuation as asked by Jones Day?

MR. GRUER: Correct.

MR. LAWRENCE: So you're not in any way trying to tell us what TSA's actual losses are, right?

MR. GRUER: The actual losses or gains--no, I'm not.

MR. LAWRENCE: Now, you agree that there was no market for new reserve funds agreement--or let me use your words. You agree that the market for new reserve fund agreements was inactive around the rejection date?

MR. GRUER: By inactive, I define that as not a lot of transactions taking place. That doesn't necessarily mean that there were dealers unwilling to make markets and to execute.

MR. LAWRENCE: You did say in your report in Paragraph 39--just so we're clear--that the market for new reserve fund agreements was inactive around the rejection date, correct?

MR. GRUER: Yes, I did say that.

MR. LAWRENCE: That's your opinion. You adopted it today in court--the entirety of your report, yes?

MR. GRUER: Yes.

MR. LAWRENCE: But you think that has no relevance to the valuation analysis that you did?

MR. GRUER: Correct.

MR. LAWRENCE: Now, there was some discussion about a quote from Wachovia. Remember that discussion with Mr. Tambe?

MR. GRUER: I do.

MR. LAWRENCE: And, in fact, you referenced the Wachovia indicative quote in your report, correct?

MR. GRUER: Correct.

MR. LAWRENCE: Now, you've never seen that quote, is that right?

MR. GRUER: I've seen it.

MR. LAWRENCE: You have seen it since the deposition was taken?

MR. GRUER: Yes.

MR. LAWRENCE: Okay. You hadn't as of the time your deposition was taken, correct?

MR. GRUER: I don't recall exactly when I saw it first but...

MR. LAWRENCE: And you hadn't at the time your expert report was written, right?

MR. GRUER: I was aware that it existed.

MR. LAWRENCE: But not having reviewed it specifically?

MR. GRUER: I don't know that I actually reviewed the specific language of it.

MR. LAWRENCE: So, an indicative quote, as you understand in the market, is not an actionable quote, is that fair?

MR. GRUER: Correct.

MR. LAWRENCE: So, if TSA got an indicative quote from Wachovia, that doesn't mean that TSA could enter into a deal with Wachovia. It doesn't tell us that one way or the other?

MR. GRUER: I agree, one way or the other.

MR. LAWRENCE: Okay. And you said the quote--if I remember correctly, you didn't know what Wachovia's practices were in March of 2009 but you know their practices subsequent? Is that a fair summary of what you told Mr. Tambe?

MR. GRUER: Yes.

MR. LAWRENCE: And you said--

MR. GRUER: I don't know the exact dates but--yes.

MR. LAWRENCE: Some time subsequent. And you indicated that in your experience, Wachovia gave midmarket value quotes, right? Indicative quotes, sorry. I'm sorry.

MR. GRUER: That's my understanding, yes.

MR. LAWRENCE: Yeah. So, based on that experience, you would've expected that Wachovia gave a midmarket quote to Lehman, one that's referenced in your report. That that would've been a midmarket indicative valuation?

MR. GRUER: No. No. It wasn't clear whether it represented a midmarket or a hypothetical dealing level.

MR. LAWRENCE: Okay. So all we know is that their practice, as you know it, was to give midmarket--was to give indicative quotes based on midmarket values?

MR. GRUER: In my experience in dealing with them, they would give mid and they would give dealing. Because when I was dealing with them it was in the context of live transactions that needed to be modified, terminated, adjusted.

MR. LAWRENCE: So, did you ever get a quote when somebody says, "I need an indicative quote from them"--did you ever go to Wachovia and say, "Hey, I just an indicative quote from you?"

MR. GRUER: I did not.

MR. LAWRENCE: Now, we're going to go to Slide 6 on your... So, Slide 6 as you described it represents the spot rates as of March 25, 2009 of agencies, CPs and treasuries. Do you see that?

MR. GRUER: I do. Broadly. It's not exactly spot rate because these are not plots of zero coupon securities. They're actually current coupon securities so they're yields but...I'm using those two terms right now interchangeably.

MR. LAWRENCE: And you've put certain dots on the chart, do you see that?

MR. GRUER: Yes, I do.

MR. LAWRENCE: And do those dots represent actual trading information for March 25, 2009?

MR. GRUER: Yes, they do.

MR. LAWRENCE: So, if we see the dot at the 15-year agency, it looks like the yield was 4-1/3 percent?

MR. GRUER: Approximately.

MR. LAWRENCE: And so, it doesn't even get up to 4-1/2 percent until you're in a 20-year agency, correct?

MR. GRUER: That looks about right.

MR. LAWRENCE: Okay. But these are based on actual transaction for long-term securities--at least to the extent they show five-year transactions and out?

MR. GRUER: Yes.

MR. LAWRENCE: So, the forward curve that you utilize is based on long-term rates substantially? Is that fair?

MR. GRUER: The forward curve that I used was based on--with respect to this specific analysis--is based on each of the dots in the green line. So, going from three months all the way out to 30 years.

MR. LAWRENCE: And most of those dots that are high--you've got five, it looks like five, seven, eight, nine, ten, 15, 20, 25 and 30. Am I reading that right?

MR. GRUER: That sounds about right.

MR. LAWRENCE: And, in fact, if you even just looked at--if you looked at a six-month pitch--sorry, a six-month picture of six-month deliverables, CP would be the cheapest to deliver per your analysis, at least for that first six months, yes?

MR. GRUER: Yeah, looking at that for a hypothetical six-month delivery on March 25th, CP would've been more

advantageous for a dealer to deliver.

MR. LAWRENCE: Did you do any inquiry into how Lehman actually priced the TSA RFA?

MR. GRUER: I did not

MR. LAWRENCE: So, you didn't take into account that they priced it based on delivering CP?

MR. GRUER: I did not, no.

MR. LAWRENCE: And did you do any investigation of how Lehman actually performed under the RFA in terms of delivering securities?

MR. GRUER: I did not.

MR. LAWRENCE: And so, did you take into account that Lehman actually delivered CP every delivery date up until the time of default?

MR. GRUER: I became aware of that post report.

MR. LAWRENCE: It was not part of your thinking in your report?

MR. GRUER: Correct.

MR. LAWRENCE: And the forward curve analysis you did is a snapshot of market transactions on a single day, correct?

MR. GRUER: Correct. March 25, 2009, to be specific.

MR. LAWRENCE: And that forward curve will change day to day, correct?

MR. GRUER: An intraday as well.

MR. LAWRENCE: And interday, meaning something less

than a full day?

MR. GRUER: Correct.

MR. LAWRENCE: So if we looked at--you would expect the forward curve back in 2002 in the RFA was adopted to be different than the one March 25, 2009, correct?

MR. GRUER: Yes, I would expect it to be different.

MR. LAWRENCE: And, in fact, if you looked at the forward curve today, which you probably could do the same way you did here, that forward curve would look different than these forward curves? The forward curves that you've created, correct?

MR. GRUER: That's correct.

MR. LAWRENCE: And the market information would be as of today's market information, correct?

MR. GRUER: Correct.

MR. LAWRENCE: And as of today, these lines would be substantially lower, wouldn't they? Because right now interest rates continue to be low.

MR. GRUER: I'd have to plot it to look at that. I can't say specifically for each data point that it would be higher or lower.

MR. LAWRENCE: But you understand interest rates have continued to stay low through--I'm losing track of today's date--November 2014?

MR. GRUER: Yes, generally that's true.

MR. LAWRENCE: And in terms of the... Let's go back to your report... You actually charted out in the end of your report cash flows from your midmarket analysis, correct?

MR. GRUER: Yes, I did.

MR. LAWRENCE: Okay. And it's Appendix 3, which looks to be Page 36. Do you have Appendix 3 in front of you?

MR. GRUER: Yes, I do.

MR. LAWRENCE: Okay. And this is your summary of cash flows where you're comparing the cash flows on the 4.484 percent to the cash flows using your agency forward curve, correct?

MR. GRUER: That's correct. That's exactly what that is.

MR. LAWRENCE: Okay. Now, if we look at the--and the agency floating curve numbers are the floating rate, correct?

MR. GRUER: Yes.

MR. LAWRENCE: (indiscernible) floating rate. So, what the forward curve was telling us was the rates as of today would be somewhere around--approaching 4.872 percent, is that right? That's what the market expectation was.

MR. GRUER: (indiscernible) Yeah. It's a little blurry on the screen.

MR. LAWRENCE: Oh, I'm sorry.

MR. GRUER: It may be my glasses. Yes, 4.872.

MR. LAWRENCE: Okay. And we certainly know that six-

month agencies are not paying 4.872 today, correct?

MR. GRUER: Correct.

MR. LAWRENCE: Six-month CP is not paying 4.72, correct?

MR. GRUER: Correct.

MR. LAWRENCE: Treasuries are not paying 4.72, correct?

MR. GRUER: Correct.

MR. LAWRENCE: Treasuries are not paying 4.72, correct?

MR. GRUER: Correct.

MR. LAWRENCE: In fact, every number that you have here from March '09--we'll give you the March '09 number. Beyond March '09, all these delivery dates, 6-1-09 to 12-1-14, all of those are wrong in terms of what actually would be deliverable as a six-month agency, correct?

MR. GRUER: When you say wrong it sounds like you're implying that that's a forecast, which is not what this was intended to be.

MR. LAWRENCE: It's not a forecast, it's not a prediction, correct?

MR. GRUER: Correct.

MR. LAWRENCE: But if we want to do a reality check of your calculations, we could look at the floating rates for six-month agencies and in every case it would be well below the

floating rates that you're using, correct?

MR. GRUER: These were accurate as of March 25, 2009.

MR. LAWRENCE: Right. My question was if we went out and looked at what was the six-month rate on June 2009, December 2009, the six-month deliverable that Lehman was supposed to deliver under the RFA--we've chosen agencies--what actually Lehman could've gone out and purchased would've been substantially lower than the rates you're showing reflecting marketing expectations in March 2009, fair?

MR. GRUER: That's fair.

MR. LAWRENCE: There's also--the forward curve creates some odd anomalies, doesn't it?

MR. GRUER: I don't know that I would call them anomalies but I think I know where you're going with this.

MR. LAWRENCE: Well, we can call it whatever you want. But let's look at December 2007. So, we've got June--2017, sorry. And December 2017. We've got interest rates at 6.17 percent. Do you see that?

MR. GRUER: Yes.

MR. LAWRENCE: Then according to this forward curve, the interest rates drop in the next six months to 1.977 percent. Do you see that?

MR. GRUER: Yes, I do.

MR. LAWRENCE: And then according to the forward curve, interest rates go up to 4.5, then 5.6. Do you see that?

MR. GRUER: Yes, I do.

MR. LAWRENCE: In terms of actual six-month agencies, is that a pattern of dropping from 6.1 to 1.9 and up to 4.5 within a year something that you've observed in your history as an investor--as an investment counselor?

MR. GRUER: That would represent a big drop, I agree, or a big rise, depending upon which one you're talking about, over that time period. But it's simply an artifact of the calculation methodology and...

MR. LAWRENCE: As Mr. Tambe would say, it's the math.

MR. GRUER: Yes.

MR. LAWRENCE: It's not the reality?

MR. GRUER: Well, it's the math. Again, the reality is--we're looking at this four or five years later.

MR. LAWRENCE: But anybody--sorry, I didn't mean to interrupt. Did we finish the answer?

MR. GRUER: Go ahead. That's fine.

MR. LAWRENCE: But anybody looking at this even on March 25th would say, "Eh, that doesn't look right." When you drop from 6.1 to 1.9 and go back up to 4.5 in a 12-month period. In your experience that doesn't look right, does it?

MR. GRUER: Well, I noticed those results but I also went back and looked at the data, the actual market data, and you could see that those--what you're referring to, these anomalies--coincide with changes in the shape of the curve for

whatever reason that the ten-year was trading particularly rich relative to the rest of the curve at that point in time for whatever reason. And that's just the math just simply falls out where it falls out.

MR. LAWRENCE: But it's the math and in your investment experience you haven't seen actually rates that look like that on a six-month basis changing that much?

MR. GRUER: No, I have not.

MR. LAWRENCE: So, you did the market based on agencies looking at agencies and CP and treasuries bought on a long-term basis in part, correct?

MR. GRUER: Can you repeat the question?

MR. LAWRENCE: You looked at a forward curve that was developed looking at agencies, CP and treasuries purchased in part on a long-term basis, correct?

MR. GRUER: Well, that's the way all forward curves are generated, so yes, I did.

MR. LAWRENCE: I'm not saying you did the forward curve wrong.

MR. GRUER: Okay.

MR. LAWRENCE: I just want to make sure we're on the same page. And do you know whether or not in reality--and, again, let's step out of the math and go back to reality here--whether... Let me step back. In your forward curve evaluation you believe that agencies are going to trade positive to LIBOR,

correct?

MR. GRUER: Yes.

MR. LAWRENCE: Your midmarket valuation is a LIBOR, I think, plus 4.66 percent, correct?

MR. GRUER: I don't remember. I never calculate explicitly a spread but it was definitely something LIBOR plus a number.

MR. LAWRENCE: And it was, I believe--and I can go back to your deposition--you told me at the deposition it was 4.66. Does that sound in the right arena? LIBOR plus 400 basis points?

MR. GRUER: No, it wasn't that high.

MR. LAWRENCE: Well, maybe we should... We'll get to your deposition in a second.

MR. GRUER: Okay.

MR. LAWRENCE: But what I want to get at is, as a matter of fact, in terms of how six-month agencies work, is it in your experience that six-month agencies in reality always trade at LIBOR or less than LIBOR?

MR. GRUER: They generally have in the past and as of March 25, 2009, there was still uncertainty with respect to the agencies and the state of the U.S. government and what they were going to be doing with the federal agencies and what the ultimate plan was for winding them down, supporting them, etc. And that's what was reflected in those curves.

MR. LAWRENCE: But, again, what you're trying to do is--you can do a midmarket valuation but you're also here trying to apply your expertise as a person who's been involved in $30 billion worth of transactions over many years in the industry, correct?

MR. GRUER: Yes.

MR. LAWRENCE: And this is a graph from the Curry Hasterok rebuttal report and you've reviewed that rebuttal report, correct?

MR. GRUER: Yes, I have.

MR. LAWRENCE: And you've seen this graph before, correct?

MR. GRUER: Yes. Yes, I did.

MR. LAWRENCE: And this is plotting actual six-month agency data, that is, what six-month agencies actually are trading at and what six-month LIBOR has been trading at since October 2002 to August or September of 2013, correct?

MR. GRUER: Correct.

MR. LAWRENCE: And all along that time, agencies are trading close or below LIBOR, correct?

MR. GRUER: Yes.

MR. LAWRENCE: So, if you wanted to apply your experience looking at how agencies actually trade, six-month agencies, which is what would be delivered under the RFA--you understand that?

MR. GRUER: Yes.

MR. LAWRENCE: Six-month agencies deliver--you want to look at that from the experience in the market from October 2, '02 to August 2013, that entire experience would tell you that, in fact, agencies are going to be trading at or below LIBOR, correct?

MR. GRUER: That they had.

MR. LAWRENCE: That they have.

MR. GRUER: In the past tense.

MR. LAWRENCE: I'm sorry. That they had. Yet in your evaluation, your midmarket evaluation, you're taking an agency as a LIBOR plus security that can be delivered, correct?

MR. GRUER: That's correct.

MR. LAWRENCE: Okay. And I don't know, do you have your deposition up there? If not I will...

MR. GRUER: I don't believe I have it here. Yes, I do.

MR. LAWRENCE: Oh, you do? Okay, I will give your Honor--I don't know if your Honor has a copy...

THE COURT: Thank you.

MR. LAWRENCE: And if you could look to page 133--and I asked you, starting on Line 18, "Utilizing the forward curve, what average rate did you identify would be associated with agencies over the period of the RFA?" Do you see that?

MR. GRUER: Yes.

MR. LAWRENCE: And you answered, "Approximately, 4.66 percent." Do you see that?

MR. GRUER: Yes.

MR. LAWRENCE: Does that refresh your recollection that your midmarket valuation is using a LIBOR plus 466 basis points valuation?

MR. GRUER: No. No.

MR. LAWRENCE: What does that tell you?

MR. GRUER: I believe that using the forward curve that I generated--using the agency curve, the midmarket rate, fixed rate or average rate of the forwards was 4.66 percent.

MR. LAWRENCE: The average rate of the forwards delivered over...?

MR. GRUER: The life of the agreement. Not LIBOR plus 4.66 percent.

MR. LAWRENCE: So that would be more like LIBOR plus about 115 basis points? Does that sound right?

MR. GRUER: That sounds, yeah, reasonable.

MR. LAWRENCE: But it's clearly LIBOR plus?

MR. GRUER: Correct.

MR. LAWRENCE: Okay. And I'm sorry if I got confused.

MR. GRUER: That's fine.

MR. LAWRENCE: Between 466 and 115. Now, in terms of comparing what you did to what Mr. Shapiro and swap did, you agree that in terms of going out and trying to replicate--

hypothetically replicate a tobacco RFA in March of 2009, that the basic methodology that Mr. Shapiro used is the right methodology, correct?

MR. GRUER: Could you say the methodology--because there a couple of steps that I had some serious disagreement with.

MR. LAWRENCE: Right and we'll get to those steps. But basically the idea of using forward curves to determine the cheapest eligible to deliver security and then taking charges for credit, charges for profit, costs, that basic methodology you would agree is the proper way to do a hypothetical replacement RFA?

MR. GRUER: Yes, I do.

MR. LAWRENCE: And once you have taken--where you dispute or you have a disagreement with Mr. Shapiro is to aspects of it. One is whether commercial paper or agencies is the cheapest to deliver, correct?

MR. GRUER: Correct.

MR. LAWRENCE: And the second and the big thing is the credit charge, correct?

MR. GRUER: Correct.

MR. LAWRENCE: So, let's talk about--and I think that we had--and we'll get this up on the screen... Slide Number 12? So this is your evaluation comparing swap and a recalculated swap using your credit charge, correct?

MR. GRUER: Correct.

MR. LAWRENCE: And you accepted Mr. Shapiro's midmarket number for CP, correct?

MR. GRUER: For purposes of this calculation.

MR. LAWRENCE: Have you gone back and done any calculation of what the CP spread to LIBOR was on March 25th?

MR. GRUER: No.

MR. LAWRENCE: And you accepted his dealer profit charges as reasonable, correct?

MR. GRUER: I didn't dispute them. I haven't done any dependent verification one way or the other.

MR. LAWRENCE: So let's wait till this siren is over... Let's talk about credit, okay?

MR. GRUER: Okay.

MR. LAWRENCE: Now, you said that you have--zero dollars of your transactions are tobacco RFAs, correct?

MR. GRUER: I believe so.

MR. LAWRENCE: So, in terms of your experience in dealing with credit, you haven't dealt specifically with an actual transacted tobacco RFA, correct?

MR. GRUER: I believe so.

MR. LAWRENCE: Okay.

MR. GRUER: But I'm not certain.

MR. LAWRENCE: Now, did you go back and make an effort to understand the charges that Lehman imposed on this

trade in the first instance?

MR. GRUER: I did not.

MR. LAWRENCE: So I'm going to show you TSA Exhibit B, which is email from the Lehman trader... Sorry. A Lehman trader talking about getting the Washington State TSA, do you see that?

MR. GRUER: Yes, I see it now.

MR. LAWRENCE: Okay. And the trader is saying, "To mitigate the credit risk involved in the tobacco deals as well as the mandatory cleanup call, we will book a credit mitigation option." Do you see that?

MR. GRUER: I do.

MR. LAWRENCE: And the credit mitigation option is identified as $4.522 million, correct? If you look on the right there. Credit mitigation... And I can show you another slide if that doesn't show it to you.

MR. GRUER: The handwritten note on the right?

MR. LAWRENCE: Yes, yes.

MR. GRUER: Okay. I see that.

MR. LAWRENCE: Okay. And going back to 12, your credit charge was $1.275 million, correct?

MR. GRUER: That's correct.

MR. LAWRENCE: It's substantially below what Lehman charged back in October 2002, correct?

MR. GRUER: If that's what they charged.

MR. LAWRENCE: Now, how would you compare the credit markets in 2002 compared to 2009? Was credit more stressed in 2009 than 2002?

MR. GRUER: Generally, yes.

MR. LAWRENCE: So, March 2009--and we've talked a lot about it--Lehman had gone bankrupt, there's a lot of other stuff happening in the market, credit was stressed, correct?

MR. GRUER: Generally, yes.

MR. LAWRENCE: And in your experience is it fair that credit charges in March of 2009, everything else being equal, you came to expect to be larger for similar situations than in 2002?

MR. GRUER: Generally, yes, but these were not similar situations. We've had...

MR. LAWRENCE: Sir, you answered my question. Generally, yes. Mr. Tambe, as the judge might tell you, will have an opportunity to have you explain.

MR. GRUER: Okay.

MR. LAWRENCE: Did you make any effort to determine what tobacco RFAs were trading at--sorry, were executed at at any level prior to March of 2009 or prior to the crisis?

MR. GRUER: No.

MR. LAWRENCE: And you said you ran numbers through a Bloomberg program, correct?

MR. GRUER: Correct.

MR. LAWRENCE: Was that a Bloomberg program that gives you specific information for a tobacco client? In other words, does it have an entry that says this a tobacco client or is this some other kind of client?

MR. GRUER: No. It prompts you to put it in a credit spread or a credit curve.

MR. LAWRENCE: It puts in the difference, as you said, between what the bond's trading at and what some index is, correct?

MR. GRUER: That's correct.

MR. LAWRENCE: But it doesn't have an entry that says, okay, this is tobacco as opposed to highways, as opposed to some other kind of municipal entity, correct?

MR. GRUER: No.

MR. LAWRENCE: Okay. And in doing the credit charge, one of the things that your program wants to know is what is the percentage of recovery in a worst case scenario, correct?

MR. GRUER: Yes.

MR. LAWRENCE: And that's basically saying, okay, suppose things go bad for the dealer, am I going to lose everything or only part of something or whatever, correct?

MR. GRUER: Yes.

MR. LAWRENCE: And you used basically a standard recovery rate in your calculation of 60-70 percent?

MR. GRUER: It was 40. It was 60 lost, 40 recovered.

MR. LAWRENCE: Okay. And I believe we talked about this at your deposition, I remember--and I think at your deposition you understood that it might be more appropriate to use a zero percent recovery, correct?

MR. GRUER: Yes.

MR. LAWRENCE: And if you use a zero percent recovery that would, of course, increase the credit charge, correct?

MR. GRUER: It would. Not materially.

MR. LAWRENCE: But it would?

MR. GRUER: Yes.

MR. LAWRENCE: And in addition to that, one of the credit issues that is specific to these tobacco RFAS is a mandatory cleanup call, correct?

MR. GRUER: Yes.

MR. LAWRENCE: And there's no button that says there's a mandatory cleanup call option in this investment to calculate credit charge, right? That's not part of the Bloomberg--they don't ask for that separately, correct?

MR. GRUER: Well, that's not really credit related, that's really more like an interest rate option than a credit. So it wouldn't be formulated one way or the other into the credit valuation adjustment.

MR. LAWRENCE: Lehman talked about it as a credit but I just want to make sure, in terms of the way that the Bloomberg system works there's no button you push that says,

"Hey, this has got a mandatory cleanup call" or some similar option in this investment, correct?

MR. GRUER: Correct.

MR. LAWRENCE: Okay. And the other thing that you didn't consider is that the priority that the dealer would have in terms of getting access to money again, if there was a problem with the bonds--that is that the bondholders would have priority over the proceeds from the master settlement agreement over the dealer, correct?

MR. GRUER: Yes.

MR. LAWRENCE: And you did not consider that in the credit charge, correct?

MR. GRUER: Correct.

MR. LAWRENCE: And that certainly puts a dealer in a worse position because his rights are subordinate to the bondholder's, correct?

MR. GRUER: Correct.

MR. LAWRENCE: And that's a credit issue?

MR. GRUER: Yes.

MR. LAWRENCE: Okay. Let's go back to your report. And, again, I'm going to go to a chart you had. Now, this is your forward curve chart, correct?

MR. GRUER: No, this is the agency curve, just with the other curve stripped out. That's the spot curve...

MR. LAWRENCE: Okay, so it's the spot curve. Let's

just talk about that 'cause I think the point could be made. I think your testimony when I was getting the 4.66 wrong--your testimony is that the dealer--midmarket value, in terms of the dealer--that the dealer would earn 4.66 percent on the $45 million over the life of the contract, correct?

MR. GRUER: I'm sorry, could you repeat that?

MR. LAWRENCE: The midmarket valuation that you used, using the agency forward curve, calculated that the dealer were to earn on average 4.66 percent over the life of the contract, correct?

MR. GRUER: Yes.

MR. LAWRENCE: And if we look at the spot rates for agencies, at what point along the spot rates do you get to 4.66 percent?

MR. GRUER: Somewhere between 20 and 25 years.

MR. LAWRENCE: So if I wanted to go out, put aside any restrictions on my having to turn things over every six months--if I wanted to go out on March 25, 2009 and buy an agency that would deliver 4.66 percent, I'd have to buy one that has a maturity date somewhere 20-25 years out, correct?

MR. GRUER: If you wanted to buy a single security, correct.

MR. LAWRENCE: Now, in terms of the life of the contract, I just want to make it clear, you used--in your calculation an end date of 2032, correct?

MR. GRUER: Correct.

MR. LAWRENCE: You think that's the proper date to use?

MR. GRUER: I do.

MR. LAWRENCE: There's something that least the experts seem to agree on, correct? Yes?

MR. GRUER: I believe so.

MR. LAWRENCE: Yes, okay. It's good to have some points of agreement. Now, again, you said that you looked at the RFA, correct?

MR. GRUER: Yes.

MR. LAWRENCE: And you looked at the definition of termination amount, correct?

MR. GRUER: I did.

MR. LAWRENCE: Before I get there, let me just ask you one thing. There's been some talk in this case about language in the RFA as if it were Lehman. I don't know if you've heard talk about that or not.

MR. GRUER: I've heard of it.

MR. LAWRENCE: Okay. But I want to make sure--you valuation doesn't take into account the as if it were Lehman language? This is the same valuation as if it were Lehman, as if it were TSA, as it if were Paul Lawrence, right?

MR. GRUER: Yes.

MR. LAWRENCE: So that language didn't enter into

your valuation calculation?

MR. GRUER: No, I wouldn't have done it differently.

MR. LAWRENCE: You would not have done it differently because of that?

MR. GRUER: Correct.

MR. LAWRENCE: Okay. So, let's look at the termination amount definition. Do you see that?

MR. GRUER: I do.

MR. LAWRENCE: Okay. And we'll go down the paragraph talking about total losses and cost. Do you see that? This is Subparagraph 3. Sorry. There we go. Maybe I can't undo this, who knows? Yes, sorry. Technology is great except when it doesn't work. Okay, do you see the paragraph, Sub 3? Sorry. Do you see that?

MR. GRUER: I do.

MR. LAWRENCE: That's the operative paragraph for how to determine the termination amount, correct? That's your understanding?

MR. GRUER: Yes.

MR. LAWRENCE: Does this mention anything about forward curves?

MR. GRUER: No, it does not.

MR. LAWRENCE: Does this describe the industry standard method--midmarket methodology that you utilize?

MR. GRUER: It doesn't explicitly.

MR. LAWRENCE: When you say it doesn't explicitly, we don't find any of those words in there that say, "Using standard industry methodology," correct?

MR. GRUER: No, but I interpret this paragraph to mean--Paragraph 3 as if you're unable to get three quotations you're going to take a method or you're going to use a methodology that will yield you the same result or a similar result.

MR. LAWRENCE: Let's follow that up. Because if you went out and you got market quotations, those market quotations would not just be a midmarket value, they would be--if they're real quotations that are actionable, they would be midmarket minus these various costs we've been talking about, correct?

MR. GRUER: For where? (indiscernible) transact?

MR. LAWRENCE: Yes.

MR. GRUER: Yes.

MR. LAWRENCE: So, by using simply a midmarket valuation, you're coming up with a lower number than you would expect to get in terms of a market quotation where the dealer was actually going to transact, correct?

MR. GRUER: Yes.

MR. LAWRENCE: And, again, if Lehman wanted to propose putting into this paragraph some language that said, "Use industry standard valuation methodologies" they could've done so?

MR. GRUER: I suppose.

MR. LAWRENCE: Okay, let's talk about Section 7.7 Losses. I guess every time you get to five you get the garbage trucks and whatever. I believe that is Page 7, Slide 7. You have before you your 7.7 loss calculation, correct?

MR. GRUER: Yes.

MR. LAWRENCE: Now, this calculation is based on a couple of assumptions on your part, correct?

MR. GRUER: Yes.

MR. LAWRENCE: It's based on your premise that Washington TSA was required under the RFA to direct the trustee to invest in the highest yielding six-month eligible instrument, correct?

MR. GRUER: Yes.

MR. LAWRENCE: And that TSA was required to direct the trustee to invest not only in the highest yielding, the one with the longest maturity date... Sorry. Longest maturity date no later than the next bond date, correct?

MR. GRUER: Correct.

MR. LAWRENCE: So, let's look at Section 7.7 if we can. It's a long contract. Okay, 7.7B is highlighted there. Do you see?

MR. GRUER: Yes.

MR. LAWRENCE: That's the provision that you're trying to apply, correct?

MR. GRUER: Yes.

MR. LAWRENCE: And it tells you that in the event of a Lehman default, the amount of losses payable--so equal to the excess of the interest the trustee would have earned on the scheduled reserve. So we all agree on what number that is, correct?

MR. GRUER: I believe we do.

MR. LAWRENCE: And then it's over the interest the trustee actually earned. Do you see that?

MR. GRUER: Yes.

MR. LAWRENCE: Okay. And you understand Mr. Shapiro did a 7.7B loss calculation, correct?

MR. GRUER: I'm not sure if he did or someone else did it but I can see a calculation.

MR. LAWRENCE: Yes. And that was based on what the difference between the 4.48 percent return and what interest the trustee actually earned. Is that your understanding?

MR. GRUER: Yes.

MR. LAWRENCE: But you believe that it should be based on something that the trustee should have earned even though they didn't actually earn? Is that your understanding?

MR. GRUER: The trustee actually earned and then--I believe there's additional language after that--by doing something. Let's see what that something is.

MR. LAWRENCE: By investing in a particular way. But

I just want to make sure that what you're saying is that the trustee in this case was supposed to do something that they didn't, correct?

MR. GRUER: Correct.

MR. LAWRENCE: But the actual earnings were directed--do you know whether or not the actual earnings were directed by TSA?

MR. GRUER: I don't.

MR. LAWRENCE: But your premise is that they should've done something different than what the trustee actually did, correct?

MR. GRUER: Well, they should've done what--invested in accordance with Section 2.4. Did they comply or not to 2.4?

MR. LAWRENCE: Well, if you look at 2.4, it says that the TSA is entitled to direct the trustee. Do you recall that?

MR. GRUER: If you can bring it up, I'll take a look.

MR. LAWRENCE: Pardon my scrolling then.

THE COURT: Mr. Lawrence, I'm just going to, while you're scrolling, observe that it's 5:22.

MR. LAWRENCE: And I am very close to finishing.

THE COURT: Okay.

MR. LAWRENCE: Actually, why don't I just leave--you're going to look at these two provisions so I don't need to do that.

THE COURT: Well, I would say to you that it's my job

to interpret the agreement.

MR. LAWRENCE: Yeah. So I can move on.

THE COURT: So you could move on, right.

MR. LAWRENCE: Okay, the last topic, I believe, is talking about the criticisms of Mr. Curry and Mr. Hasterok. And we've gone through quite a bit of this already with Professor Babbel. I don't know if you were in the room with him when he was here.

MR. GRUER: I was for part of it, but also doing other things.

MR. LAWRENCE: But you criticize using an average yield of .65 percent over the course of 1909 to... Sorry. It's late. It is late. 2009 to 2032, correct?

MR. GRUER: Yes.

MR. LAWRENCE: Okay. Now, I think you used the word arbitrary in your testimony with Mr. Tambe, correct?

MR. GRUER: Yes.

MR. LAWRENCE: Now, the data that they use wasn't arbitrarily chosen, it was chosen because that's what, in fact, the TSA invested in, correct?

MR. GRUER: For a very brief period of time. Over a very long-dated contract.

MR. LAWRENCE: I understand that. But we're talking about arbitrariness. It was picked for a reason. You may not think it's the right period but it was picked for a reason,

correct?

MR. GRUER: Yes.

MR. LAWRENCE: It was when they actually transacted, correct?

MR. GRUER: I don't know the reason they picked it, I just know they picked it for a reason.

MR. LAWRENCE: We have four months of when the TSA actually transacted, correct?

MR. GRUER: Yes.

MR. LAWRENCE: And the forward curve looks at one day of data, correct?

MR. GRUER: Yes.

MR. LAWRENCE: I have nothing further, your Honor.

THE COURT: Okay. Mr. Tambe?

MR. TAMBE: Can I have two minutes?

THE COURT: Sure.

MR. TAMBE: I'll be short. You were asked a question about your credit charge versus some number you were shown on the screen for 2002. Do you remember that?

MR. GRUER: Yes.

MR. TAMBE: And I believe you began to say, "These are not similar situations." Do you remember that?

MR. GRUER: That's correct.

MR. TAMBE: Why are they not similar situations?

MR. GRUER: Well, in 2002, the transaction was a much

longer (indiscernible)...

MR. TAMBE: Get closer to the microphone.

MR. GRUER: In 2002, the transaction was seven years longer so there would've been more price volatility associated with the transaction. Additionally, in 2002, the interest rate environment was a different interest rate environment, and presumably in 2002, when Lehman Brothers did this transaction they did it for some profit so there was--and I don't know what that valuation was but there was probably some decent profit value in that transaction. Looking at a credit charge, we look at the current valuation of a transaction, which arguably in 2002 would've been greater and--

MR. TAMBE: Greater from whose perspective?

MR. LAWRENCE: May I ask the witness to just speak up a little bit?

THE COURT: Just a little bit.

MR. GRUER: Oh, I'm sorry.

THE COURT: Sorry, the noise outside is...

MR. TAMBE: There's lots of noise outside.

MR. GRUER: Is this better?

MR. TAMBE: Not really.

MR. GRUER: When looking at a credit charge, we would look at the current valuation of the agreement as well as the potential for the agreement to go up or down in value. So in 2002, presumably the agreement had greater value to Lehman than

in 2009, just given where interest rates were. There was more price volatility associated with the agreement in 2002, given-- or potential for greater price volatility, given the fact that it was seven years longer in life in 2002 than it was in 2009. While, yes, I agree that the credit spread probably widened between 2002 and 2009 for tobacco, it's not a linear relationship. In fact, when you look at small changes in credit spreads, generally speaking, a small increase in a credit spread will increase the credit charge. But when you look at large increases in credit spreads they don't always translate into larger credit charges. And the reason is--remember, what we're trying to capture is the intersection of when the agreement is in the money or when it's at a high (indiscernible) coupled with the probability of default. So when you have a very strong credit, you generally have a small probability of default, which means the agreement has the potential to move--a lot of times has the ability to elapse generating potentially a greater value of the transaction, given the passage of time.

If you're taking a junk credit or a really high-spread credit, in theory, if the agreement has got marginal value or even negative value and with a weak enough credit, you may have an inferred probability of default in a very short order--meaning, the agreement may never actually get positive or get very positive.

So, when you're talking about wholesale changes in the credit spreads over a period of time, simply saying that--if I use a 50-basis point credit spread or I use a 400-basis point credit spread, the credit charge--not only would it not be nine or ten times larger, it may actually go down. I mean, you'd have to run the analysis and the calculus to see what the result is because each one of those legs of the calculation that goes into a credit charge is independent of the other. And what we're solving for is the intersection.

MR. TAMBE: Just so we're clear, what are the two legs? Describe the two legs. What are the two legs?

MR. GRUER: Well, there's the valuation and the potential for there to be valuation to change--either to become positive or to become more positive over the passage of time. And the second one is the probability of default, given the passage of time, based on the credit spread of the particular client.

MR. TAMBE: So, just taking those two legs, the value of the transaction versus the probability of default--the bond spread number--Mr. Shapiro's bond spread number--which of those two legs does it correspond to?

MR. GRUER: The probability of default.

MR. TAMBE: Okay. Does Mr. Shapiro do an analysis off what the value of the transaction is going to be?

MR. GRUER: He does not.

MR. TAMBE: If you go to Page 12 or Slide 12, the demonstratives. 12. Did you reverse engineer Mr. Shapiro's midmarket number?

MR. GRUER: Yes, I did.

MR. TAMBE: And does that show a positive value to Lehman or a negative value to Lehman?

MR. GRUER: It shows a positive value to Lehman of, approximately, $45 million.

MR. TAMBE: Is that what Line 1 shows? I'm not sure.

MR. GRUER: A $32 million credit charge.

MR. TAMBE: Is that a positive value to Lehman or is it a negative value to Lehman?

MR. GRUER: Positive value to Lehman.

MR. TAMBE: Okay. And why is that a positive value to Lehman?

MR. GRUER: Because a $32 million credit charge based on a 429 basis point credit point spread is what Lehman would've reserved if the value of the agreement was 45 million.

MR. TAMBE: You're misunderstanding what I'm saying.

MR. GRUER: Okay.

MR. TAMBE: I'm not asking you if Lehman had done the transaction this way, it would've been in the money. What I'm saying is the valuation that Mr. Shapiro has done, which is the left hand side column, correct?

MR. GRUER: Yes.

MR. TAMBE: You take that valuation apart in the right hand column, correct?

MR. GRUER: Correct.

MR. TAMBE: And I think you talked about this in direct. You're isolating one item in his calculation.

MR. GRUER: Correct.

MR. TAMBE: And what is that item that you're isolating?

MR. GRUER: The credit charge.

MR. TAMBE: Okay. If you isolate the credit charge and you isolate the other items, what is the value that Mr. Shapiro places in his calculation on the value of the transaction?

MR. GRUER: Midmarket, roughly, 3.7 million before 7.7B loss. So about 4.1 or 2.

MR. TAMBE: And is that in Lehman's favor or out of Lehman's favor?

MR. GRUER: That is out of Lehman's favor.

MR. TAMBE: Okay. And does that equate to an exposure or no exposure?

MR. GRUER: It equates to no exposure at that point in time.

MR. TAMBE: Now going back to your two legs--you've got the 429 basis point spread. Is that first line the first leg off that equation?

MR. GRUER: Can you repeat the question?

MR. TAMBE: Is the value that we just talked about, the exposure...

MR. GRUER: Yes.

MR. TAMBE: ...is that the other part of the calculation?

MR. GRUER: Yes.

MR. TAMBE: And you have to calculate the two of those to do what?

MR. GRUER: To determine what the credit charge or credit reserve would be.

MR. TAMBE: And is that what the Bloomberg CBA model does?

MR. GRUER: Yes.

MR. TAMBE: In the document that was shown to you, I believe it was TSA Exhibit B, that's the email--the internal Lehman email from 2002. Do you recall that?

MR. GRUER: Yes.

MR. TAMBE: There was a discussion on that email about a mandatory cleanup call. Do you see that? We can pull it up. B. The top part of the email, please. When you did your valuation as of March 25, 2009, what end date did you assume for the transaction?

MR. GRUER: 2032.

MR. TAMBE: Was it your belief that there was a risk

in 2009 of a mandatory cleanup call?

MR. GRUER: No, I did not.

MR. TAMBE: Did you analyze whether or not there was a risk of a mandatory cleanup call at the inception of the transaction?

MR. GRUER: I did not analyze it.

MR. TAMBE: There were a couple of discussions about 4.66--average of 4.66. Do you remember that?

MR. GRUER: Yes.

MR. TAMBE: If you can turn to your expert report 139, Exhibit 139. And go to Page 36, it's Appendix 3. And if you could increase the size of that, please. All the way down. Is 4.66 the average off the numbers that appear in the floating rate column, sir?

MR. GRUER: The time-adjusted average, yes.

MR. TAMBE: Okay, what do you mean by time-adjusted average?

MR. GRUER: It's not simply a linear average by taking all of them and dividing by the number of occurrences. Each one is adjusted by the duration. Because the cash flow in the last period is worth less. It's got a present value reduction factor. So the last period's cash flow would be worth less than the first period's cash flow.

MR. TAMBE: You were asked a question about--I forget what word was used--anomaly or an artifact in that column. Do

you remember that?

MR. GRUER: Yes.

MR. TAMBE: Okay. And that was roughly around 2017-2018, do you remember that?

MR. GRUER: I do.

MR. TAMBE: Can you go back to the spot curves from which this was derived and explained to the court what the relationship is between that spot curve and this artifact or anomaly?

MR. GRUER: Sure. If we go to Slide 6--and, unfortunately, I don't have a pointer here but if we look at the--

MR. TAMBE: You can step out and point if you like.

MR. GRUER: Okay. If we look at the graph of the agency curve, you can see that there's a reflection (indiscernible) between nine and ten years. (indiscernible) visually whether the nine year is higher than the ten-year or they're about the same. But you could see the (indiscernible)... The reasons for that are unknown. (indiscernible) transact that at that point in time. Likewise, between (indiscernible) and both of those flips here translate to the anomalies (indiscernible).

THE COURT: Does it have to do with--you're looking at--that's at a 10-year maturity, right?

MR. GRUER: This is a 10-year, 9-year.

THE COURT: Right. So, does it have to do with the fact that that--if you go back in time, is right around when the markets failed?

MR. GRUER: (indiscernible)

THE COURT: From March 2005. Okay. Got it.

MR. GRUER: So just for whatever reason, on that particular date, you can look--the 10-year was trading (indiscernible) speculation. (indiscernible) at this point was suppressed because that's what the market did. And likewise (indiscernible) in the anomalies (indiscernible).

MR. TAMBE: Mr. Gruer, if you were in the market and transacting and you were an end user, would you transact at those spot prices if you were able to transact in long-dated instruments?

MR. GRUER: That's where you'd buy or sell.

MR. TAMBE: And if you were a market participant that was transacting in the forward market through swaps or some other means, would you transact at the floating rates that are implied by or embedded in that green curve?

MR. GRUER: Can you repeat the question?

MR. TAMBE: Sure. The forward curve that you've calculated, the floating rate column on Appendix 3--are there market participants who could transact at those prices?

MR. GRUER: Yes.

MR. TAMBE: On March 25, 2009, correct?

MR. GRUER: Yes.

MR. TAMBE: And for the people who transacted in the market, were those the prices?

MR. GRUER: For midmarket--yeah, that would've been...

MR. TAMBE: If you can go to Exhibit Z. And the graph that you were shown was... You can just flip through, I'll tell you when to stop. Okay. If you can just increase the size of that graph. That's a graph that's prepared as of--I'm just looking at the right axis--sometime in 2013, is that right?

MR. GRUER: It looks like it's historical data from 2002 to '13.

MR. TAMBE: Okay, so it's 2013 looking back?

MR. GRUER: Correct.

MR. TAMBE: Okay. What would you look at if you wanted to look forward in terms of where you expected agency rates to be?

MR. GRUER: I would look at the yield curves that we were just looking at before.

MR. TAMBE: And was the future relationship of agencies to LIBOR expected to be the same as the historical relationship of agencies to LIBOR?

MR. GRUER: Not necessarily.

MR. TAMBE: And the market's expectations of what agencies would trade at and where they were trading on March

25, 2009 would be collected where?

MR. GRUER: In those data points that we used to construct the curve, where actual trades took place.

MR. TAMBE: What's one plus one? What's one plus one?

MR. GRUER: Two.

MR. TAMBE: What's five plus five?

MR. GRUER: Ten.

MR. TAMBE: What's five plus five?

MR. GRUER: Ten.

MR. TAMBE: What's 100 plus 100?

MR. LAWRENCE: Your Honor, besides being leading, they're argumentative. Don't put your hand up when I'm making--

THE COURT: Okay, gentlemen, we're almost done. Mr. Lawrence, have a seat. I don't know where Mr. Tambe's going with this but I am guessing he's going to get there soon or I'm going to get him there soon.

MR. TAMBE: So, the last question was what's ten plus ten?

MR. GRUER: 20.

MR. TAMBE: Was that a leading question? Did I suggest the answer to you, sir?

MR. GRUER: No.

MR. TAMBE: You knew what the answer was, correct?

MR. GRUER: Yes.

MR. TAMBE: That's the math, isn't it, sir?

MR. GRUER: Yes.

MR. TAMBE: And that's the reality?

MR. GRUER: Yes.

MR. TAMBE: Thank you.

MR. LAWRENCE: We won't go through math and reality.

THE COURT: Good.

MR. LAWRENCE: I have one subject, because we've gone through all this stuff a lot, but I think there was something he said and I just want to clarify. Mr. Tambe asked you about mandatory cleanup calls, correct? You indicated that you had not done any evaluation of the probability of mandatory cleanup call in 2002, correct?

MR. GRUER: Correct.

MR. LAWRENCE: And it's also correct you didn't go through and try to do an evaluation based on master settlement flows of dollars in your report to determine whether or not there would be potential for a mandatory cleanup call at any time prior to 2032? That's not part of what you did, is that right?

MR. GRUER: Well, when I looked at where the credit spread was for tobacco bonds in 2009, that credit spread alone told me that the market wasn't concerned about the bonds being paid back too quickly. They were worried about the bonds being paid back at all.

MR. LAWRENCE: My question was did you do an analysis

based on the flows of the tobacco payments to the states--and to Washington TSA as to when the bonds would likely be paid off or not? Did you do that evaluation?

MR. GRUER: No, I did not.

MR. LAWRENCE: That's it. Thank you.

MR. TAMBE: No further questions, your Honor.

THE COURT: Okay. Mr. Gruer, you're excused. Thank you very much.

MR. GRUER: Thank you.

THE COURT: Okay, now it's almost a quarter to six. You had wanted us to--me to watch the video, so we have a number of options that include my not watching the video. But I'm happy to do that but we have a lot of housekeeping matters that I want to talk about before everybody runs away. So, what would you like to do?

MR. TAMBE: Can we have a sidebar about it, if possible, your Honor?

THE COURT: Yes, that's an excellent...

MR. LAWRENCE: If it matters (indiscernible) we don't have any objection to them providing the video to you to watch in your chambers.

THE COURT: It's been done before and I watch the video before I make a decision. So, we can do that or--I think a little conversation would be a good idea. But I'd like to get this nice person out of here. So let's talk for a few minutes

and then we'll get you out of here. And, Emanuel, if you could just stick for a few minutes, okay?

Okay, all right. Thank you all very much. Have a seat. So we've conferred about what else parties need to do and I am going to take the video deposition of Mr. Vergara to view on my own before rendering a decision. There is one open item with respect to a possible additional production that Mr. Tambe and Mr. Lawrence know that they are going to work out between the two of them. And the record was left open to the extent that there's any follow-up that needs to be done with respect to that. We have previously discussed that the parties will cooperate with each other on deposition designations, cross-designations and objection to any or all of that. And the parties also, after they have a chance to get some sleep, will determine a schedule for submitting proposed findings of fact in conclusions of law. The way I like it done is findings of fact and briefs that cite to the findings of fact, and I think we talked about it months and months ago that I like--I request findings that are non-advocates. Very accurate findings with record citations to documents and to the transcripts, and we would set a date for closing argument. And also before we would do that, you would advise me as to what exhibits you would like admitted into the record and if there are any objections with respect to the admission of any of the documents.

And I think that about wraps it up so that we can

close the record. And thank you all very much for your patience and your kindness.

MR. LAWRENCE: Thank you, your Honor.

THE COURT: And your energy. Thank you. All right? And I'm going to leave it to the two of you to communicate what's going to happen now, okay? All right.

MR. TAMBE: Thank you, your Honor.

MR. LAWRENCE: Thank you.

THE COURT: Emanuel, we're done. We're not going back on the record for today. Thank you so much for staying late.

I N D E X

MOTIONS

C E R T I F I C A T I O N

I, Sonya Ledanski Hyde, certify that the foregoing transcript is a true and accurate record of the proceedings.

Sonya Ledanski Hyde

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